WORLDS OF TOMORROW

APRIL 1963 • 50c

PEOPLE OF THE SEA
by
ARTHUR C. CLARKE

THIRD PLANET
by
MURRAY LEINSTER

TO SEE THE INVISIBLE MAN
by ROBERT SILVERBERG

THE LONG-REMEMBERED THUNDER
by KEITH LAUMER

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ALL NEW STORIES

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EDITORIAL

For this first issue of *Worlds of Tomorrow*, we can do no better than to turn our editorial space over to Arthur C. Clarke for a word on the basis upon which he constructed *People of the Sea*. Says Mr. Clarke:

"The hovership described in the opening chapters does not yet exist, of course, but the first commercial 'Hovercraft' (the SRN-2) is now operating in Great Britain. In fifty years, such air-supported vehicles may well have grown to the size of the *Santa Anna*.

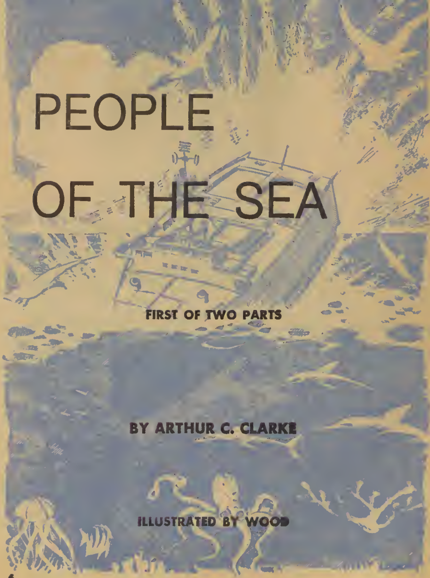
"All the descriptions of the Great Barrier Reef, both above and below water, are entirely factual, and are based on my own explorations as described in *The Coast of Coral*. The story of Mary Watson in Chapter 13 is perfectly true, although it occurred not on my imaginary Dolphin Island, but on Lizard Island, much nearer to the mainland.

"Whether dolphins are quite as intelligent as I have assumed is one of the most fascinating problems of present-day research. There is no doubt, however, that they *are* very intelligent, and have some sort of language, as well as a marvellous 'sonar' system which allows them to detect underwater obstacles and to catch fish in the dark. If you want to know more about these delightful animals, try to get hold of Antony Alpers' *A Book of Dolphins* and Dr. John Lilly's *Man and Dolphin*, from both of which I obtained much useful material. I would also like to express my thanks to Mr. F. G. Wood, Curator of Marineland, Florida, for providing me with valuable information on dolphin behavior.

"The controlling of animals by electrical impulses fed into their brains, as described in Chapter 16, is already an accomplished fact; indeed, it was achieved as early as the 1930's. If you want to learn more about this fascinating (and rather terrifying) subject, see the article "Electrically Controlled Behavior" in *Scientific American* for March 1962."

Now read the story!

—THE EDITOR



PEOPLE OF THE SEA

FIRST OF TWO PARTS

BY ARTHUR C. CLARKE

ILLUSTRATED BY WOOD

He was determined to follow the hovercraft liner wherever it went. He didn't know it was going to the bottom of the sea!

I

Johnny Clinton was sleeping when the hovership raced down the valley, floating along the old turnpike on its cushion of air. The whistling roar in the night did not disturb him, for he had heard it almost all his life. To any boy it was a sound of magic, telling of far-off countries and strange cargoes, carried in the first ships that could travel with equal ease across land and sea.

No, the familiar roar of the air jets could not awaken him, though it might haunt his dreams. But now it had suddenly stopped, here in the middle of Transcontinental Thruway 21. That was enough to make Johnny sit up in bed, rubbing his eyes and straining his ears into the night. What could have happened? Had one of the great land-liners *really* halted here, four hundred miles from the nearest terminus?

Well, there was one way to find out. For a moment he hesitated, not wishing to face the winter cold. Then he plucked up his courage, wrapped a blanket round his shoulders, quietly eased up the window and stepped out on the balcony.

It was a beautiful crisp night, with an almost full moon lighting up every detail of the sleeping landscape. Johnny could not see the turnpike from the southern side of the house, but the balcony ran completely round the old-fashioned building, and it took him only seconds to tiptoe round to the northern face. He was specially careful to be quiet when passing the bedrooms of his aunt and cousins; he knew what would happen if he woke *them*.

But the house slept soundly beneath the winter Moon, and none

of his unsympathetic relatives stirred as Johnny tiptoed past their windows. Then he forgot all about them, for he saw that he had not been dreaming.

The hovership had left the wide lane of the turnpike and lay, blazing with lights, on flat ground a few hundred yards to the side of the Thruway. Johnny guessed that it was a freighter, not a passenger liner, for there was only one observation deck, and that ran only part of the vessel's five hundred feet of length. The ship looked, Johnny could not help thinking, exactly like a giant flatiron—except that instead of a handle running longways there was a streamlined bridge crossways, a third of the distance back from the b . Above the bridge a red beacon was flashing on and off, warning any other craft that might come this way.

She must be in some kind of trouble, thought Johnny. I wonder how long she'll be here? Time for me to run down and have a good look at her? He had never seen a hovership at close quarters—at least, not one at rest. You didn't see much when they roared past at three hundred miles an hour on their way to —anywhere.

It did not take him long to make up his mind. Ten minutes later, hurriedly dressed in his warmest clothes, he was quietly unbolting the back door. As he stepped out into the freezing night, he never dreamed that he was leaving the house for the last time. And even if he had known, he would not have been sorry.

The closer Johnny approached it, the more enormous the hovership appeared. Yet it was not one of the giants like the hundred-thousand-ton oil or grain carriers that sometimes went whistling through the valley; it probably only grossed fifteen or twenty thousand tons. Across its bow it bore the words SANTA ANNA, BRASILIA in somewhat faded lettering: even in the moonlight, Johnny had the distinct impression that the whole ship could do with a new coat of paint and a general clean-up. If the engines were in the same state as the patched and shabby hull, that would explain this unscheduled halt.

There was not the slightest sign of life as Johnny circumnavigated the stranded monster. But this did not surprise him. Freighters were largely automatic, and one this size was probably run by less than a dozen men. If his theory was correct, they would all be gathered in the engine room, trying to find what was wrong.

Now that she was no longer supported by her jets, the *Santa Anna* rested on the huge flat-bottomed buoyancy chambers that served to keep her afloat if she came down on the sea. They ran the full length of the hull, and as Johnny walked along them, they loomed above him like overhanging walls. In several places it was possible to scale those walls, for there were steps and handholds recessed into the hull, leading to entrance hatches about twenty feet from the ground.

Johnny looked thoughtfully at these openings. Of course, they were

probably locked; but what would happen if he *did* go aboard? With any luck, he might have a good look around before the crew caught him and threw him out. It was the chance of a lifetime, and he'd never forgive himself if he missed it . . .

He did not hesitate any longer, but started to climb the nearest ladder. About fifteen feet from the ground he had second thoughts, and paused for a moment.

It was too late. The decision was made for him.

Without any warning, the great curving wall to which he was clinging like a fly began to vibrate. A roaring howl, as of a thousand tornadoes, shattered the peaceful night. Looking downward, Johnny could see dirt, stones, tufts of grass, being blasted outwards from beneath the ship as the *Santa Anna* hoisted herself laboriously into the air. He could not go back; the jets would blow him away like a feather in a gale. The only escape was upward—and he had better get aboard before the ship started to move. What would happen if the hatch was locked, he dared not imagine.

He was in luck. There was a handle folded flush with the surface of the metal door, which opened inwards to reveal a dimly lit corridor. A moment later, heaving a great sigh of relief, Johnny was safely inside the *Santa Anna*. As he closed the door, the scream of the jets died to a muffled thunder—and at the same moment he felt the ship beginning to move.

He was on his way to an unknown destination.

II

For the first few minutes he was scared. Then he realized that there was nothing to worry about. He had only to find his way to the bridge and explain what had happened, and he'd be dropped off at the next stop. The police would get him home in a few hours.

Home. But he had no home. There was no place where he really belonged. Twelve years ago, when he was only four, both his parents had been killed in an aircrash. Ever since then he had lived with his mother's sister. Aunt Martha had a family of her own, and had not been very pleased at the addition. It had not been so bad while plump, cheerful Uncle James was alive, but now that he was gone it had become more and more obvious to Johnny that he was a stranger in the house.

So why should he go back—at least, before he had to do so? This was a chance that would never come again. And the more he thought about it, the more it seemed to Johnny that Fate had taken charge of his affairs. Opportunity beckoned. He would follow where it led.

His first problem would be to find somewhere to hide. That should not be difficult, in a vessel as large as this; but unfortunately he had no idea of the *Santa Anna's* layout, and unless he was careful he might blunder into one of the crew. Perhaps the best policy would be to look for the cargo section for no one would be likely to go there while the ship was on the move.

Feeling very much like a burglar,

Johnny began to explore. He was soon completely lost. He seemed to wander for miles, along dimly lit corridors and passageways, up spiral stairs and down vertical ladders, past hatches and doors bearing mysterious names. Once he ventured to open one of these, when he found the sign "Main Engines" too much to resist. Very slowly, he pushed the metal door ajar, and found himself looking down into a huge chamber almost filled with turbines and compressors. Great air-ducts, thicker than a man, led from the ceiling and out through the floor, and the sound of a hundred hurricanes shrieked in his ears. The wall on the far side of the engine-room was covered with instruments and controls, and three men were examining these with such attention that Johnny felt quite safe in spying on them. In any case, they were more than fifty feet away from him, and would hardly notice a door that had opened a couple of inches.

They were obviously holding a conference—mostly signs, since it was impossible to talk in this uproar. Johnny soon realized that it was more of an argument than a conference, for there was much violent gesticulation, pointing to meters, and shrugging of shoulders. Finally, one of the men threw up his arms as if to say "I wash my hands of the whole business" and stalked out of the engine-room.

The *Santa Anna*, Johnny decided, was not a happy ship.

He found his hiding place a few minutes later. It was a small-storage room, about twenty feet on a side, crammed with freight and baggage.

When Johnny saw that every item was addressed to places in Australia, he knew that he would be safe until he was a long, long way from home. There would be no reason for anyone to come here, until the ship had crossed the Pacific and was on the other side of the world.

Johnny clawed a small space among the crates and parcels and sat down with a sigh of relief, resting his back against a large packing case labeled "Bundaberg Chemical Pty." He wondered what 'Pty' stood for, and still hadn't hit upon "Proprietary" when excitement and exhaustion caught up with him, and he fell asleep on the hard metal floor.

When he awoke the ship was at rest. He could tell this immediately because of the silence, and the absence of all vibration. Johnny looked at his watch, and saw that he had been aboard for five hours. In that time—assuming that she had made no other unscheduled stops—the *Santa Anna* could easily have traveled more than a thousand miles. Probably she had reached one of the great inland ports along the Pacific coast, and would be heading out to sea as soon as she had finished loading cargo.

If he was caught now, Johnny realized, his adventure would soon be ended. He had better stay where he was, until the ship was on the move again, far out over the ocean. She would certainly not turn back to discharge a sixteen-year-old stowaway

But he was hungry and thirsty. Sooner or later he would have to

get some food. The *Santa Anna* might be waiting here for days, and in that case he'd be starved out of his hiding place . . .

He decided not to think about eating, though that was difficult because it was now his breakfast time. Great adventurers and explorers, Johnny told himself firmly, had suffered far worse hardships than this.

Luckily, the *Santa Anna* remained only for an hour at this unknown port of call. Then, to his great relief, Johnny felt the floor start to vibrate, and heard the distant shrilling of the jets. There was an unmistakeable lifting sensation as the ship heaved herself off the ground, then a surge as she moved forward.

In two hours, thought Johnny, he should be well out at sea—if his calculations had been correct and this was indeed the last stop on land.

He waited out the two hours as patiently as he could, then decided it was safe to give himself up. Feeling just a little nervous, he set off in search of the crew—and, he hoped, of something to eat.

But it was not as easy to surrender as he had expected. If the *Santa Anna* had appeared large from the outside, from the inside she seemed absolutely enormous. He was getting hungrier and hungrier—and had still seen no signs of life.

He did, however, find something that cheered him considerably. This was a small porthole, which gave him his first view of the outside world. It was a very poor view, but it was quite enough. As far as he could see was a gray, choppy, expanse of waves. There was no sign of land—nothing but empty water, racing by beneath him at a tremendous speed.

It was the first time that Johnny had even seen the ocean. All his life he had lived far inland, among the hydroponic farms of the Arizona Desert, or the new forests of Oklahoma. To see so much wild and unconfined water was wonderful, and a little terrifying. He stood for a long time staring through the porthole, trying to grasp the fact that he was indeed racing away from the land of his birth, towards a country of which he knew nothing.

It was too late now to change his mind.

He found the answer to the food problem quite unexpectedly, when he stumbled upon the ship's lifeboat. It was a 25-foot, completely enclosed motor launch, tucked under a section of the hull that could be opened like a huge window. The boat was slung between two small cranes that could swing outward to drop it in the sea.

Johnny could not resist climbing into the little boat—and the first thing he noticed was a locker marked "Emergency Rations." The struggle with his conscience was a brief one. Thirty seconds later, he was nibbling biscuits and some kind of compressed meat. A tank of rusty water soon satisfied his thirst, and presently he felt much better. This was not going to be a luxury cruise, but its hardships would now be endurable.

This discovery made Johnny change his plans. There was no need

to give himself up. He could hide for the whole duration of the trip —and. with any luck, he could walk off at the end without being spotted. What he would do afterwards he had no idea, but Australia was a big place, and he was sure that something would turn up.

Back in his hide-out, with enough food for the twenty hours that was the longest that the voyage could possibly last, Johnny tried to relax. Sometimes he dozed. Sometimes he looked at his watch and tried to calculate where the *Santa Anna* must be. He wondered if she would stop at Hawaii or one of the other Pacific islands, and hoped that she would not. He was anxious to start his new life as quickly as possible.

Once or twice he thought of Aunt Martha. Would she be sorry that he had run away? He did not believe so, and he was sure that his cousins would be very happy to get rid of him. One day, when he was rich and successful, he would contact them again, just for the satisfaction of seeing their faces. And that went for most of his classmates too, *especially* those who made fun of his small size and called him "Tiny." He'd show them that brains and determination were more important than brawn . . . It was pleasant to lose himself in such fantasies, and from them he drifted slowly into sleep.

He was still asleep when the voyage ended. The explosion shook him awake instantly, and a few seconds later he felt the impact as the *Santa Anna* crashed into the sea. Then the lights went out, and he was left in total darkness.

III

It was the first time in his life that Johnny had ever felt utter, unreasoning panic. His limbs had turned to jelly. He could hardly breathe for the weight that was pressing on his chest. It seemed that he was already drowning—as indeed he might soon be, unless he could escape from this trap.

He had to find the way out, but he was surrounded by crates and packing cases and soon lost all sense of direction as he blundered among them. It was like one of those nightmares when you tried to run and couldn't. But this was no dream. It was all too real.

The pain and shock of crashing against some unseen obstacle jarred him out of his panic. It was no good losing his head and stumbling around in the dark. The thing to do was to keep moving in the same direction until he found the wall. Then he could work along it until he came to the door.

The plan was excellent, but there were so many obstructions that it seemed an age before he felt smooth metal in front of him and knew that he had reached the wall of the compartment. After that, the rest was easy, and he almost cried with relief when he found the door and jerked it open. For the corridor outside was not, as he had feared, also in darkness. The main lights had failed, but a dim blue emergency system

was operating and he could see without difficulty.

It was then that he noticed the smell of smoke, and realized that the *Santa Anna* was on fire. He also noticed that the corridor was no longer level. The ship was badly down at the stern—where the engines were. Johnny guessed that the explosion had breached the hull, and that the sea was coming in.

Perhaps the ship was in no danger, but he could not be sure. He did not like the way she was listing, still less the ominous creaking of the hull. The helpless ship was rolling and pitching in a most unpleasant manner. and Johnny felt a sensation in the pit of his stomach that he guessed must be the first sign of sea-sickness He tried to ignore it, and to concentrate on the more important matter of staying alive.

If the ship was sinking, he had better find his way to the lifeboat as quickly as possible; that would be where everyone else would be heading. The crew would be surprised to find another passenger, and he hoped there would be enough room for him.

But where was the lifeboat section? He had only been there once, and though he was sure he could find his way if he had plenty of time, this was just what he lacked Because he was in such a hurry, he took several wrong turnings and had to retrace his footsteps. Once he found his way blocked by a massive steel bulkhead which, he was certain, had not been there before. Smoke curled around its edges and Johnny could hear quite distinctly, a steady crackling sound from the far side. He turned and ran as fast as he could back along the dimly lit passageway.

He was exhausted, and desperately frightened, when he finally got back on the correct track. Yes, this was the right corridor—there would be a short flight of stairs at the end, and that would lead to the lifeboat section. He started to run, now that he was near his goal and had no need to conserve his strength.

His memory had not played him false. The stairs were there, just as he had expected. But the boat was gone.

The hull was wide open, and the davits were slung outward with their empty pulley-blocks waving as if to tantalize him. Through the huge gap that had opened to pass the lifeboat, fierce gusts of wind were blowing, bringing flurries of spray The taste of salt was already bitter in Johnny's mouth. soon he would know it only too well.

Sick at heart he walked to the opening and looked out over the sea. It was night, but the moon that had seen the beginning of his adventure still shone upon its ending. Only yards below, an angry sea was smashing against the side of the ship, and ever and again a wave came climbing up the hull and went swirling round his feet. Even if the *Santa Anna* was not shipping water elsewhere, she would soon be doing so here.

Somewhere, not far away, there was a muffled explosion, and the emergency lights flickered and died.

They had served him just long enough, for he could never have found his way here in the darkness. But did it matter anyway? He was alone, in a sinking ship, hundreds of miles from land.

He peered out into the night, searching for some sign of the lifeboat, but the sea was empty The launch could, of course, be standing-by on the other side of the *Santa Anna*, and he would be unable to see it. This seemed the most likely explanation, for the crew would hardly have left the area while the ship was still afloat. Yet they had certainly wasted no time, so they must have known that the situation was serious Johnny wondered if the *Santa Anna* was carrying a cargo of explosives or inflammables—and if so, just when would it go up.

A wave slapped against his face, blinding him with sprays Even during these few minutes, the sea had crept appreciably higher.

Johnny would not have believed that so large a ship could go down so quickly; but hoverships, of course, were very lightly built and were not designed for this sort of treatment. He guessed that the water would be level with him in about ten minutes.

He was wrong. Suddenly, without warning, the *Santa Anna* checked her slow, regular wallow and gave a great lurch, like a dying animal trying to get to its feet for the last time. Johnny did not hesitate; some instinct told him that she was going down, and that he had better get as far away as he could.

Bracing himself for the chill, he hit the water in a smooth, clean dive. Even as he went under, he was surprised to experience not cold, but warmth. He had forgotten that during these last few hours he had passed from winter temperature, into summer.

When he came to the surface, he started swimming with all his might, in his clumsy but effective overarm stroke. Behind him he heard monstrous gurglings and crashings, and a roaring sound as of steam escaping from a geyser. Abruptly, all these noises ceased; there was only the moaning of the wind and the hissing of the waves as they swept past him into the night. The tired old *Santa Anna* went down smoothly, without any fuss, and the backward suction that Johnny had feared never arrived.

When he was sure that it was all over, he trod water while he surveyed the situation—and the first thing that he saw was the lifeboat, less than a half a mile away He waved his arms and shouted at the top of his voice, but it was quite useless. The boat was already leaving. Even had anyone been looking back, it was unlikely that he would have been spotted. And, of course, no one would have dreamed that there was another survivor to be picked up.

Now he was alone, beneath a yellow, westering moon and the strange stars of the southern skies. He could float here for hours The sea, he had already noticed, was much more buoyant than the freshwater creeks in which he had learned to swim. But howev long he

stayed afloat, it would make no difference in the end.

There was not one chance in a million that anybody would find him. His last hope had vanished with the departing lifeboat.

Something humped into him, making him velp with surprise and alarm. But it was only a piece of debris from the ship; the water around him, Johnny noticed, was full of floating objects. The discovery raised his spirits a little, for if he could make a raft that would improve his chances considerably. Perhaps he might even drift to land, like those men who had ridden the Pacific currents on the famous *Kon-Tiki*, almost a century ago.

He began swimming towards the slowly swirling debris, and found that the sea had suddenly become much smoother. Oil oozing from the wreck had calmed the waves, which no longer hissed angrily, but rose and fell in sluggish undulations. At first their height had scared him, but now as he bobbed up and down with their passage, he found that they could do him no harm. Even in his present predicament, it was exciting to know that one could rise safely and effortlessly over the biggest wave.

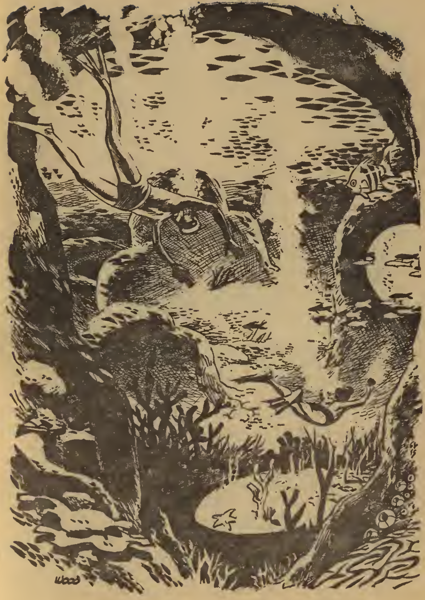
Presently he was pushing his way among floating boxes, pieces of wood, empty bottles and all sorts of small flotsam. None of this was any use to him; he wanted something big enough to ride on. He had almost given up hope of finding it when he noticed a dark rectangle rising and falling in the swell, about fifty feet away.

When he reached it, he was delighted to find that it was a large packing case. With some difficulty, he scrambled aboard, and found that it could carry his weight. The raft was not very stable, and had a tendency to capsize until Johnny spread himself flat across it; then it rode the waves with about three inches to spare. In the brilliant moonlight, Johnny could read the stencilled letters across which he was lying. They said: "PLEASE STORE IN A COLD, DRY PLACE."

Well, he was hardly dry, but he was certainly getting cold. The wind blowing across his wet clothes was making him feel uncomfortably chilly, but he would have to put up with this until the sun rose He looked at his watch and was not surprised to see that it had stopped. Even so, the time it showed made no sense. Then he remembered that he must have crossed many time zones since he stole aboard the ill-fated *Santa Anna*. By now, his watch would be at least six hours fast.

He waited, shivering on his little raft, watching the moon go down and listening to the noises of the sea. Though he was worried he was no longer badly frightened. He had had so many narrow escapes that he had hegun to feel that nothing could harm him. Even though he had no food or water, he was safe for several days. He refused to think further ahead than that.

The moon slid down the sky, and the night grew darker around him. As it did so, he saw to his astonish-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ment that the sea was ablaze with floating particles of light. They flashed on and off like electric signs, and formed a luminous lane behind his drifting raft. When he dipped his hand in the water, fire seemed to flow from his fingers.

The sight was so wonderful that for a moment he forgot his danger. He had heard that there were luminous creatures in the sea—but he had never dreamed that they existed in such countless myriads. For the first time, he began to glimpse something of the wonder and mystery of the great element that covered three quarters of the globe, and which now controlled his destiny.

The moon touched the horizon, seemed to hover there for a moment, and then was gone. Above him the sky was ablaze with stars—the ancient ones of the old constellations, the brighter ones that had been put there by man. in the fifty years since he had ventured into space. But none of these were as brilliant as the stars that flashed in such billions beneath the sea, that the raft appeared to float upon a lake of fire.

Even when the moon had set, it seemed ages before the first sign of dawn. Then Johnny saw a faint hint of light in the eastern sky watched eagerly as it spread along the horizon, and felt his heart leap as the golden rim of the sun pushed up over the edge of the world. Within seconds, the stars of sky and sea had vanished as if they had never existed. and day had come.

He had barely time to savor the beauty of the dawn when he saw something that robbed the morning of all its hope. Heading straight toward him out of the west, with a speed and purpose that chilled his blood. were dozen of gray, triangular fins.

IV

As those fins sliced toward the raft, cutting through the water with incredible speed, Johnny thought of all the gruesome tales he had read about sharks and shipwrecked sailors. He drew himself up into as little space as possible, at the center of the packing-case. It wobbled alarmingly, and he realized how small a push would be needed to turn it over. To his surprise, he felt little fear—only a kind of numbed regret and a hope that, if the worst came to the worst, it would all be over quickly And it seemed a pity, too, that no one would ever know what had happened to him . . .

Then the water around the raft was full of sleek, gray bodies, switchbacking along the surface in a graceful roller-coaster motion. Johnny know almost nothing about the creatures of the sea. but surely sharks did not swim in this fashion. And these animals were breathing air. just as he was; he could hear them wheezing as they went by, and caught glimpses of blow-holes opening and closing Why, of course—they were dolphins!

Johnny relaxed, and no longer tried to hide himself in the middle of his raft. He had often seen dolphins on movie or TV, and knew that they were harmless, friendly

creatures. They were playing like children among the wreckage of the *Santa Anna,* butting at the floating debris with their streamlined snouts, making the strangest whistling and creaking noises as they did so. A few yards away one had reared its head completely out of the water and was balancing a plank on its nose, like a trained animal in a circus act. It seemed to be saying to its companions, "Look at me—see how clever I am!"

The strange, unhuman but intelligent head turned towards Johnny—and the dolphin dropped its plaything with an unmistakeable gesture of surprise. It sank back into the water, squeaking with excitement, and a few seconds later Johnny was surrounded by glistening, inquisitive faces. They were smiling faces, too, for the mouths of the dolphins seemed to be frozen in a kind of fixed grin—one so infectious that Johnny found himself smiling back at them.

He no longer felt alone. Now he had companionship, even though it was not human and could do nothing to help him. It was fascinating to watch the leathery, dove-gray bodies moving around him with such effortless ease, as they hunted among the debris of the *Santa Anna*. They were doing this, Johnny soon realized, purely out of playfulness and fun. They were more like lambs gambolling in a Spring meadow than anything he had ever expected to find in the sea.

The dolphins continued to bob up and to look at him from time to time, as if making sure that he had not run away. They watched with great curiosity as he pulled off his sodden clothing and spread it to dry in the sun, and they seemed to be giving the matter careful thought when Johnny asked them solemnly: "Well, what shall I do now?"

One answer to that question was obvious; he had to arrange some shelter from the tropical sun before it roasted him alive. Luckily, this problem was quickly solved. He was able to build a little wigwam from some pieces of driftwood which he lashed together with his handkerchief and then covered with his shirt. When he had finished he felt quite proud of himself, and hoped that his audience appreciated his cleverness.

Now he could do nothing but lie down in the shade and conserve his strength, while the wind and the currents carried him to an unknown fate. He did not feel hungry and, though his lips were already dry, it would be several hours before thirst became a serious problem.

The sea was much calmer now, and low oily waves were rolling past with gentle undulating motion. Somewhere Johnny had come across the phrase "Rocked in the cradle of the deep." Now he knew exactly what it meant. It was so soothing, so peaceful here that he could almost forget his desperate position, he was content to stare at the blue sea and the blue sky, and to watch the strange and beautiful animals that glided and swooped around him, sometimes hurling their bodies clear out of the water in the sheer joy of life . . .

Something jolted the raft, and he awoke with a start. For a moment he could hardly believe that he had been sleeping, and that the sun was now almost overhead. Then the raft jerked again—and he saw why.

Four dolphins, swimming side by side, were pushing the raft through the water. Already it was moving faster than a man could swim, and it was still gaining speed. Johnny stared in amazement at the animals splashing and snorting only inches away from him; was this another of their games?

Even as he asked himself that question, he knew that the answer was no. The whole pattern of their behavior had changed completely. This was deliberate and purposeful; playtime was over. He was in the center of a great pack of animals, now all moving steadily in the same direction. There were scores, if not hundreds, ahead and behind, to right and left, as far as he could see. H felt he was moving across the ocean in the midst of a military formation—a regiment of plunging, water-borne cavalry.

He wondered how long they would keep it up, but they showed no signs of slackening. From time to time one of the dolphins would drop away from the raft, and another would immediately take its place, so that there was no loss of speed. Though it was very hard to judge how fast he was moving, Johnny guessed that the raft was being pushed along at over five miles an hour. There was no way of telling, however, whether he was moving north, south, east or west; he could get no compass bearings from the almost vertical sun.

Not until much later in the day did he discover that he was heading towards the west, for the sun was going down in front of him. He was glad to see the approach of night, and looked forward to its coolness after the scorching day. By this time he was extremely thirsty. His lips were parched and cracked and, though he was tantalized by the water all around him, he knew that it would be dangerous to drink it. His thirst was so overpowering that he did not feel any hunger; even if he had some food, he would be unable to swallow it.

It was a wonderful relief when the sun went, sinking in a blaze of gold and red. Still the dolphins drove on into the west, beneath the stars and the rising moon. If they kept this up all through the night, Johnny calculated, they would have carried him the best part of a hundred miles. They *must* have a definite goal, but what could it be? He began to hope that there was land not far away, and that for some unknown reason these friendly and intelligent creatures were taking him to it. But why they were going to all this trouble, he could not imagine.

The night was the longest that Johnny had ever known, for his growing thirst would not allow him to sleep. To add to his distress, he had been badly sunburnt during the day, and kept twisting and turning on the raft in a vain attempt to find a comfortable position. Most of the time he lay flat on his back, using

his clothes to protect the sore spots, while the moon and stars crept across the sky with agonizing slowness. Sometimes the brilliant beacon of a satellite would drift from west to east, travelling much more swiftly than any of the stars, and in the opposite direction. It was maddening to know that up there were men and instruments that could easily locate him—if they bothered to search. But of course there was no reason why they should.

At last the moon went down, and in the brief darkness before dawn the sea once more came alight with phosphorescence. The graceful, superbly streamlined bodies all around the raft were outlined with fire; every time one of them shot into the air, the trajectory of its leap was a glowing rainbow in the night.

This time Johnny did not welcome the dawn: now he knew how pitiful his defences were against the tropical sun. He re-erected his little tent, crept beneath it and tried to turn his thoughts away from drink.

It was impossible. Every few minutes, he found himself picturing cold milk-shakes, glasses of iced fruit juice, chilled ice cream sodas—water flowing from faucets in sparkling streams. Yet he had not been adrift for more than thirty hours; men had survived without water for much longer than that.

The only thing that kept up his spirit was the determination and energy of his escort. The school still drove on into the west, carrying the raft before it with undiminished speed. Johnny no longer puzzled himself about the mystery of the dolphins' behavior; that was a problem that would solve itself in good time —or not at all.

And then, about mid-morning, he caught his first glimpse of land.

For many minutes he was afraid it was merely a cloud on the horizon—but if so, it was strange that it was the only cloud in the sky, and that it lay dead ahead. Before long he could not doubt that it was an island, though it seemed to float clear of the water, and the heat haze made its outlines dance and shimmer against the skyline.

An hour later, he could see its details clearly. It was long and low, and completely covered with trees. A narrow beach of dazzling white sand surrounded it, and beyond the beach, there seemed to be a very wide, shallow reef, for there was a line of white breakers at least a mile out at sea.

At first Johnny could see no signs of life; but at last, with great relief, he spotted a thin stream of smoke rising from the wooded interior. Where there was smoke there were human beings—and the water for which his whole body was now craving.

He was still several miles from the island when the dolphins gave him a bad shock; they were turning aside as if to bypass the land that was now close. Then Johnny understood what they were doing. The reef was too great an obstacle, and they were going to outflank it, approaching the island from the other side.

The detour took at least an hour, but Johnny's mind was at rest now

that he felt sure that he was nearing safety. As the raft and its untiring escort swung around to the western side of the island, he saw first a small group of boats at anchor, then some low white buildings, then a collection of huts with dark-skinned people moving among them. There was a fairly large community here, on this lonely speck in the Pacific.

Now at last the dolphins seemed a little hesitant, and Johnny got the impression that they were reluctant to go into the shallow water. They pushed the raft slowly past the anchored boats, then backed off as if to say, "It's up to you now."

Johnny felt an overwhelming impulse to say some words of thanks, but his mouth was too dry for speech. So he stepped quietly off the raft, found himself in water only waist-deep and waded ashore.

There were people running along the beach towards him, but they could wait. He turned towards the lovely, powerful creatures who had brought him on this incredible journey, and waved them a grateful farewell. Already they were turning back towards their home, in the deep water of the open sea.

Then something seemed to happen to his legs, and as the sand came up to hit him, dolphins, island and everything else vanished from his consciousness.

V

When Johnny awoke, he was lying on a low bed inside a very clean, white-walled room. A fan was spinning above his head, and light filtered in through a curtain-covered window. A cane chair, a small table, a chest of drawers and a washbasin completed the furniture. Even without the faint smell of disinfectant, he would have known that he was in the hospital.

He sat up in bed, and immediately yelped with pain. From head to foot he seemed to be on fire. When he looked down at his body, it was an angry red and patches of skin were peeling off in large flakes. He had already received some medical attention, for the worst places had been liberally covered with white ointment.

Johnny gave up the idea of moving, at least for the time being, and collapsed back into bed with another involuntary cry. At that moment the door opened, and an enormous woman came into the room; her arms were like bolsters, and the rest of her was built on the same scale. She must have weighed at least two hundred and fifty pounds. Yet she was not unhealthily fat—she was simply huge.

"Well, young man," she said. "What's all the noise? I never heard such a fuss about a little sunburn."

A broad smile spread across her flat, chocolate-brown face, just in time to check Johnny's indignant answer. He managed a feeble grin in reply, and submitted while she took his pulse and temperature.

"Now," she said, as she put away the thermometer, "I'm going to send you to sleep, and when you wake up, all the pain will be gone. But before I do that, you'd better give me your address so we can

telephone your family right away."

Johnny stiffened, despite his hurns. After going through all this, he was determined not to he sent home by the next boat.

"I haven't any family," he said. "There's no one I want to send a message to."

The nurse's eyebrows rose a fraction of an inch.

"Hmm," she said, in a skeptical tone of voice. "Well, in that case, we'll give you your nightcap right away."

"Just a minute," pleaded Johnny. "Please tell me where I am. Is this Australia?"

The nurse took her time in answering. as she slowly poured a colorless fluid into a measuring glass. "Yes and no," she said. "This is Australian territory, though it's a hundred miles from the mainland. You're on an island in the Great Barrier Reef, and very lucky to have reached it. Here, swallow this—it doesn't taste too bad."

Johnny made a face, but the nurse was speaking the truth. As the medicine went down, he asked one more question.

"What's this place called?"

The huge nurse gave a chuckle that sounded like a small thunderstorm going by.

"*You* should know," she said. The drug must have been very quick-acting. because Johnny harely caught her next words hefore he was unconscious again: "Dolphin Island."

The next time he woke up he felt a slight stiffness, but all the burning had gone. So had half his skin, and for the next few days he was moulting like a snake.

Nurse, who had informed him that her name was Tessie and that she came from the island of Tonga, watched approvingly while he ate a hearty meal of eggs, canned meat and tropical fruits. After that, he felt ready for anything and was anxious to start exploring at once.

"Don't be so impatient," said Nurse Tessie, "there's plenty of time." She was going through a bundle of clothing, hunting for shorts and shirt that would fit Johnny. "Here — try these for size. And take this hat, too. Keep out of the sun until you've worked up a proper tan. If you don't, you'll be back here again—and that would make me very angry."

"I'll he careful," promised Johnny. He decided that it would be an extremely had idea to make Nurse angry.

She put two fingers in her mouth and blew a piercing whistle, whereupon a tiny girl appeared almost instantly.

"Here's your dolphin-boy, Annie," said Nurse. "Take him to the office — Doctor's waiting."

Johnny followed the child along paths of crushed coral fragments, blindingly white in the fierce sun. They wandered about large shady trees, which looked rather like oaks except that their leaves were several sizes too hig. Johnny was a little disappointed by this; he had always helieved that tropical islands were covered with palms.

Presently the narrow road opened into a large clearing. and Johnny

found himself looking at a group of single-storied concrete buildings, linked together with covered walks. Some had large windows behind which people could be seen at work; others had no windows at all and looked as if they contained machines, for pipes and cabling led into them.

Johnny followed his little guide up the steps into the main building; as they walked past the windows, he could see the people inside staring at him curiously That was not surprising, in view of the way he had arrived here. Sometimes he wondered if that strange ride was imagination—it seemed too fantastic to be true. And was this place *really* called Dolphin Island, as Nurse Tessie had said? That would be an altogether outrageous coincidence. . .

His guide, who had been apparently too shy or too overawed to utter a word, disappeared as soon as she had led Johnny to a door marked "Dr. Keith—Assistant Director." He knocked, waited until a voice said "Come in," and pushed his way into a large air-conditioned office, refreshingly cool after the heat outside.

Dr. Keith was a man in his forties, and looked like a college professor. Even though he was sitting behind his desk, Johnny could see that he was abnormally tall and gangling; he was also the first white person he had met on the island.

The doctor waved Johnny to a chair, saying in a slightly nasal voice as he did so, "Sit down, sonny."

Johnny didn't like being called "Sonny," nor did he like the doctor's Australian accent, which he had never before encountered at close quarters. But he said, "Thank you," very politely, sat down, and waited for the next move.

It was completely unexpected. "Perhaps you'd better begin by telling us," said Dr. Keith, "just what happened to you—after the *Santa Anna* went down."

Johnny stared at him openmouthed, all his plans in ruins. They had only been half-formed plans, but he had at least hoped that he could pose for a little while as a shipwrecked sailor suffering from loss of memory. But if they knew how he had travelled, they also knew where he had come from, and he would undoubtedly be sent home at once.

He decided not to give up without a fight.

"I've never heard of the *Santa*—whatever her name is," he replied innocently.

"Give us credit for a little intelligence, sonny. When you came ashore in such a novel manner, we naturally radioed the coastguard to find if any ships had been lost. They told us that the crew of the hoverfreighter *Santa Anna* had put in at Brisbane, reporting that their ship had sunk about a hundred miles east of us. However, they reported that everyone had been saved, even the ship's cat.

"So that seemed to rule out the *Santa Anna*—until we had the bright idea that you might be a stowaway. After that it was just a matter of checking with the police along the *Santa Anna's* route." The doctor paused for a moment, picked up a

briar pipe from his desk, and examined it as if he'd never seen such an object before. It was at this point that Johnny decided that Dr. Keith was just playing with him, and his initial dislike went up a few more degrees.

"You'd be surprised how many boys still run away from home," continued that annoying voice. "It took several hours to pin you down —and I must say that when we called your Aunt Martha, she didn't sound particularly grateful. I don't really blame you for clearing out."

Perhaps Dr. Keith wasn't so bad after all. "What are you going to do with me now I'm here?" asked Johnny. He realized to his alarm that there was a slight quiver in his voice, and that tears of disappointment and frustration were not far away.

"There's not much that we *can* do at the moment," said the doctor, raising Johnny's hopes at once. "The boat's over at the mainland and won't be back until tomorrow. It will be a week after that before it sails again—so you have eight days here that you can count on."

Eight days! His luck was still holding out. Many things could happen in that time—and he would make sure that they did.

In the next half hour, Johnny described his ride back from the wreck, while Dr. Keith made notes and asked questions. Nothing about the story seemed to surprise him, and when Johnny had finished, he pulled a sheaf of photographs out of his desk drawer. They were pictures of dolphins. Johnny had no idea that there were so many different varieties.

"Could you identify your friends?" the doctor asked.

"I'll try," said Johnny, riffling through the prints. He quickly eliminated all but three probables and two possibles.

Dr. Keith looked quite satisfied with his choice of dolphins.

"Yes," he said, "it would have to be one of those." Then he asked Johnnny a very odd question.

"Did any of them speak to you."

At first Johnny thought he was joking; then he saw that Dr. Keith was perfectly serious.

"They made all sorts of noises—squeaks and whistles and barks—but nothing that I could understand."

"Nothing like this?" asked the doctor. He pressed a button on his desk, and from a loudspeaker at the side of the office came a sound like a rusty gate creaking on its hinges. Then there was a string of noises that reminded Johnny of an old-fashioned gas engine starting up—and after that, clearly and unmistakeably, "Good morning, Doctor Keith."

The words were spoken quickly, with a hissing accent, but they were perfectly distinct. And even then, on that first hearing, Johnny knew that he was not listening to a mere echo or a parrot-like repetition. The animal that said "Good morning, Doctor Keith," had known exactly what it was doing.

"You seem surprised," chuckled the doctor. "Hadn't you heard that

dolphins could speak?" Johnny shook his head.

"Well, it's been known for half a century that they have an elaborate language of their own. We've been trying to learn it—and, at the same time, trying to teach them Basic English. We've made a good deal of progress, thanks to the techniques worked out by Professor Kazan. You'll meet him when he comes back from the mainland; he's very anxious to hear your story. Meanwhile I'd better find someone to look after you."

Dr. Keith pressed a switch, and a reply came at once from an intercom speaker.

"School here. Yes, doctor?"

"Any of the older boys free at the moment?"

"You can have Mick—and welcome to him."

"Good. Send him round to the office."

Johnny sighed. Even on an island as small and remote as this, it seemed, one couldn't escape from school.

IV

As a guide to the island. Mick Nauru had just one drawback—he would exaggerate. Most of his tall stories were so outrageous that there was no danger of taking them seriously, but sometimes Johnny was left in doubt. Was it really true, for instance, that Nurse Tessie (or Two Ton Tessie as the islanders called her) had left home because the *big* girls on Tonga poked fun at her for being so small? Johnny didn't think so, but Mick assured him that it was perfectly true. "Ask her if you don't believe me," he said, his face completely solemn beneath his huge mop of black, frizzy hair.

Luckily, his other information was more easily checked, and on matters that were really important he was quite serious. As soon as Dr. Keith had handed Johnny over to him, Mick took him on a quick tour of the island and introduced him to its geography,

There was quite a lot in a small area, and it was several days before Johnny knew his way around. The first thing he learned was that Dolphin Island had two populations—the scientists and technicians of the research station, and the fisherfolk who operated the boats and made a living from the sea. The fishing community also provided the workers who ran the power station, water supply and other essential services, such as the cookhouse, laundry and the tiny farm of ten pampered cows.

"We brought in the cows," explained Mick, "after the Professor tried to process dolphin milk. That's the only time we've had a mutiny on the island."

"How long have you been here?" asked Johnny. "Were you born here?"

"Oh, no. My people come from Darnley Island, up in the Torres Strait. They moved here five years ago, when I was twelve. The pay was good and it sounded interesting."

"And is it interesting?"

"You bet! I wouldn't go back to Darnley, or the mainland either.

Wait until you see the reef, and you'll understand why."

They had left the cleared paths and were taking a short cut through the small forest which covered most of the island. Though the trees were closely packed, it was not hard to push a way through them, for there were none of the thorns and creepers that Johnny had expected in a tropical forest. The plant life of the island was wild, but well behaved.

Some of the trees appeared to have small piles of sticks propped around their bases, and it was some time before Johnny realized that the props were actually part of the trees. It seemer that they did not trust the soft soil in which they were growing, and had sent out extra roots above ground as buttresses.

"They're pandanus," explained Mick. "Some people call them breadfruit trees, because you can make a kind of bread from them. I ate some once; it tasted horrible. Look out!"

He was too late. Johnny's right leg had sunk into the ground up to his knee, and as he floundered to extricate himself, the left leg plunged even deeper.

"Sorry," said Mick, who didn't look at all sorry. "I should have warned you. There's a mutton-bird colony here. They make their nests in the ground, like rabbits, and in some places you can't walk a foot without falling into them."

"Thank you for telling me," said Johnny sarcastically, as he clambered out and dusted himself off. There were a great many things to learn, it seemed, on Dolphin Island.

He came to grief several times in the mutton-birds, — or Wedge-tailed Shearwaters', to give their proper name — burrows before they emerged from the trees, and walked down on the beach. This was the eastern side of the island, facing the great emptiness of the open Pacific It was hard to believe that he had come from far beyond that distant horizon, brought here by a miracle he still did not understand.

There was no sign of human life. They might have been the only inhabitants. This coast was exposed to the seasonal gales, so all the buildings and dock installations were on the sand, and bleached white by months and years of sun was a silent monument to some past hurricane. There were even great boulders of dead coral, weighing tons, which could only have been hurled up on the beach by wave action. And yet it all looked so peaceful now ...

The boys started to walk along the sand dunes between the edge of the forest and the coral-covered beach. Mick was searching; and presently he found what he was looking for

Something large had crawled up out of the sea, leaving what looked like tank tracks in the sand. At the end of the tracks, high above the water level, there was an area of flattened sand in which Mick commenced to dig with his hands.

Johnny helped him, and about a foot down they came across dozens of eggs, the size and shape of table-tennis balls. They were not hard-shelled, however, but leathery and

flexible. Mick took off his shirt, made a bag out of it and packed in all the eggs he could.

"D'ya know what they are?" he asked.

"Yes," said Johnny promptly, to Mick's obvious disappointment. "Turtle eggs. I saw a movie on TV once, showing how the baby turtles hatch and dig themselves out of the sand. What are you going to do with these?"

"Eat them, of course. They're fine, fried with rice."

"Ugh!" said Johnny. "You won't catch me trying it."

"You won't know," answered Mick. "We've got a very clever cook."

They followed the curve of the beach round the north of the island, then the west, before coming back to the settlement. Just before they reached it, they encountered a large pool or tank, connected to the sea by a canal. As the tide was now out, the canal was closed by a lock gate, trapping water in the pool until the sea returned.

"There you are," said Mick. "That's what the island is all about."

Swimming slowly around in the pool, just as he had seen them out in the Pacific, were two dolphins. Johnny wished he could have examined them more closely, but a wire-mesh fence made it impossible to get near the pool. On the fence, in large red letters, was a message which read: QUIET PLEASE—HYDROPHONES IN ACTION.

They tiptoed dutifully past, then Mick explained: "The Proff doesn't like anyone talking near the dolphins. Says it's liable to confuse them. One night some crazy fisherman got drunk and came and shouted a lot of bad language at them. There was an awful row. He was chucked out on the next boat."

"What sort of man is the Proff?" asked Johnny.

"Oh, he's fine—except on Sunday afternoons."

"What happens then?"

"Every Sunday morning his old lady calls and tries to talk him into coming home. He won't go. Says he hates Moscow—it's too hot in the summer and too cold in the winter. So they have terrific fights, but every few months they compromise and meet at somewhere like Yalta."

Johnny thought this over. He was anxious to learn all that he could about Professor Kazan, in the hope of improving his chances of staying on the island. Mick's description sounded a little alarming. Still, as Sunday had just passed, the Professor should be in a good temper for several days.

"Can he *really* talk dolphin language?" asked Johnny. "I didn't think anyone could imitate those weird noises."

"He can't talk it himself—but he can translate tape recordings, with the help of the computers. And then he can make new tapes and talk back to them. It's a complicated business, but it works."

Johnny was impressed, and his curiosity was aroused. He had always liked to know how things worked, and he couldn't imagine how one

would even begin to learn dolphin language.

"Well," said Mick, when he put the question to him, "have you ever stopped to think how *you* learned to speak?"

"By listening to my mother, I suppose," Johnny answered, a little sadly; he could just remember her.

"Of course. So what the Proff did was to take a mother dolphin with a new baby, and put them into a pool by themselves. Then he listened to the conversation as the baby did."

"It sounds almost too easy," said Johnny.

"Oh, it took years, and he's still learning. But now he has a vocabulary of thousands of words, and he's even started to write a dolphin history."

"History?"

"Well, you can call it that. Because they don't have books, they've developed wonderful memories. They can tell us about things that happened in the sea ages ago. At least, that's what the Proff says. And it makes sense. Before men invented writing, they had to carry everything in their own heads. The dolphins have done the same."

Johnny pondered these surprising facts until they had reached the administrative block and completed the circuit of the island. At the sight of all these buildings, housing so many busy workers and complicated machines, he was struck by a more down-to-earth thought.

"Who pays for all this?" he asked. "It must cost a fortune to run."

"Not much, compared to the money that goes into space," Mick answered. "The Proff started fifteen years ago with about six helpers. When he began getting results, the big science foundations gave him all the support he needed. So now we have to tidy the place up every six months for a lot of fossils who call themselves an inspection committee. I've heard the Proff say it was much more fun in the old days."

That might be true, thought Johnny. But it looked as if it was still a lot of fun now—and he intended to share it.

VII

The hydrofoil launch *Flying Fish* came scudding out of the west at fifty knots, making the crossing from the Australian mainland in two hours. When she was near the Dolphin Island reef, she retracted her skis, settled down on the water like a conventional boat and finished her journey at a sedate ten knots.

Johnny knew that she was in sight when the whole population of the island started to migrate down to the jetty. He followed out of curiosity, and stood watching on the beach as the white-painted launch came cautiously down the channel blasted through the coral.

Professor Kazan, wearing a spotlessly white tropical suit and a wide-brimmed hat, was the first ashore. He was warmly greeted by a reception commiteee in which technicians, fishermen, clerical staff and children were all mixed up together. The island community was extremely

democratic, everyone regarding himself as the equal of everyone else. But Professor Kazan, as Johnny soon discovered, was in a class of his own, and the islanders treated him with a curious mixture of respect, affection and pride.

Johnny also soon discovered that if you came down to the beach to watch the *Flying Fish* arrive, you were expected to help unload her. For the next hour, he assisted an impressive flow of parcels and packing cases on its way from boat to Stores. The job had just been finished, and he was having a welcome cool drink, when the public address system asked him if he would kindly report to Tech Block as soon as possible.

When he arrived, he was shown into a large room full of electronic equipment. Professor Kazan and Dr. Keith were already sitting at an elaborate control desk, and took no notice of him at all. Johnny didn't mind; he was too fascinated at what was going on

strange series of sounds, repeated over and over again, was coming from a loudspeaker. It was like the dolphin noises that Johnny had already heard, but there was a subtle difference. After about a dozen repeats, he realized what this was. The sounds had been slowed down considerably, to allow sluggish human ears to appreciate their fine details.

But this was not all. Each time the string of dolphin noises came from the speaker, it also appeared as a pattern of light and shade on a large TV screen. The pattern of bright lines and dark bands looked like a kind of map, and though it meant nothing to Johnny's untrained eye it obviously conveyed a good deal to the scientists. They watched it intently every time it flashed on the screen, and occasionally adjusted controls that brightened some areas and darkened others.

Suddenly, the Professor noticed Johnny, turned off the sound and swiveled round in his seat. However, he did not switch off the picture, which continued flashing silently and steadily with such a hypnotic rhythm that Johnny's eyes kept coming back to it.

All the same, he made the most of this first opportunity of studying Professor Kazan. The scientist was a plump, gray-haired man in his late fifties; he had a kindly but rather distant expression, as if he wanted to be friends with everyone, yet preferred to be left with his own thoughts. As Johnny was to discover, he could be excellent company when he relaxed, but at other times he would seem to be somewhere else altogether, even when he was talking to you. It was not that he bore much resemblance to the "absent-minded professor" of the popular imagination: no one could be less absent-minded than Professor Kazan when it came to dealing with practical matters. He seemed to be able to operate on two levels at once. Part of his mind would be coping with the affairs of everyday life, and another part would be wrestling with some profound scientific problem. No wonder, therefore, that he often appeared to be listening to

some inner voice that no one else could hear.

"Sit down, Johnny," he began. "Dr. Keith radioed about you while I was over on the mainland. I suppose you realize just how lucky you've been?"

"Yessir," answered Johnny, with considerable feeling.

"We've known for centuries that dolphins sometimes help humans to shore. In fact, such legends go back for two thousand years, though no one took them very seriously until our time. But you weren't merely pushed to land. You were carried a hundred miles.

"On top of that, you were brought directly to *us*. But why? This is what we'd very much like to know. I don't suppose you have any ideas?"

Johnny was flattered by the question, but could do little to answer it.

"Well," he said slowly, "they must have known that you were working with dolphins, though I can't imagine how they found out."

"That's easy to answer," Dr. Keith interjected. "The dolphins we've released must have told them."

Professor Kazan nodded.

"Yes—and that gives us some valuable information. It means that the coastal species we work with, and their deep-sea cousins, speak the same language. We didn't know *that* before."

"But we're still in the dark about their motives, said Dr. Keith. "If wild dolphins that have never had any direct contact with men go to all this trouble, it suggests that they want something from us—and want it badly. Perhaps rescuing Johnny meant something like 'We've helped you—now help us.'"

"It's a plausible theory," agreed Professor Kazan. "But we won't find the answer by talking. There's only one way to discover what Johnny's friends were driving at—and that's to ask them."

"If we can find them."

"Well, if they really want something, they won't be too far away. We may be able to contact them without leaving this room."

The Professor threw a switch, and once more the air was full of sound. But this time, Johnny soon realized, he was not listening to the voice of a single dolphin, but to all the voices of the sea.

It was an incredibly complex mixture of hissings and cracklings and rumblings. Mingled with these, there were chirps that might have been made by birds, faint and distant moans, and the murmur of a million waves.

They listened for several minutes to this fascinating medley of noises; then the Professor turned another switch.

"That was Hydrophone West," he explained to Johnny. "Now we'll try Hydro East. It's in deeper water, right off the edge of the Reef."

The sound picture changed. The noise of the waves was fainter, but the moanings and creakings from the unknown creatures of the sea were much louder. Once more the Professor listened for several minutes, then he switched to North, and finally South.

"Run the tapes through the ana-

lyzer, will you?" he asked Dr. Keith. "But I'd be willing to bet even now that there's no large school of dolphins within twenty miles."

"In that case, bang goes my theory."

"Not necessarily. Twenty miles is nothing to dolphins. And they're hunters, remember, so they can't stay in one place. They have to follow their food wherever it goes. The school that Johnny met would soon vacuum-clean all the fish off our reef."

The Professor rose to his feet, then continued.

"I'll leave you to run the analysis—it's time I went down to the pool. Come along, Johnny. I want you to meet some of my best friends."

As they walked towards the beach, the Professor seemed to fall into a reverie. Then he startled Johnny by suddenly and skillfully producing a string of rapidly modulated whistles.

He laughed at Johnny's surprised expression.

"No human being will ever speak Dolphin," he said, "but I can make a fair attempt at a dozen of the commoner phrases. I have to keep working at them, though, and I'm afraid my accent's pretty terrible. Only dolphins that know me well can understand what I'm trying to say. And sometimes I think they're just being polite."

The professor unlocked the gate to the pool, and then carefully locked it behind him.

"Everyone wants to play with Susie and Sputnik, but I can't allow it," he explained. "At least, not while I'm trying to teach them English."

Susie was a sleek, excited matron of some 300 pounds, who reared herself half out of the water as they approached. Sputnik, her nine-month old son, was more reserved, or perhaps more shy: he kept his mother between himself and the visitors.

"Hello, Susie," said the Professor, speaking with exaggerated clarity. "Hello, Sputnik." Then he pursed his lips and let fly with that complicated whistle. Something went wrong halfway through, and he swore softly under his breath before going back to start afresh.

Susie thought this was very funny. She gave several yelps of dolphin laughter, then squirted a jet of water at her visitors—though she was polite enough to miss them. Then she swam up to the Professor, who reached into his pocket and produced a plastic bag full of tidbits.

He held one piece high in the air, whereupon Susie backed away a few yards, came shooting out of the water like a rocket, took the food neatly from the Professor's fingers and dived back into the pool with scarcely a splash. Then she emerged again and said distinctly, "Thank you, 'fessor."

She was obviously waiting for more, but Professor Kazan shook his head.

"No. Susie," he said, patting her on the back. "No more. Food-time soon."

She gave a snort that seemed to express disgust, then went racing round the pool like a motor boat,

clearly showing off. As Sputnik followed her, the Professor said to Johnny:

"See if you can feed him. I'm afraid he doesn't trust me."

Johnny took the tidbit, which smelled to high heaven of fish, oil and chemicals. It was, he found later, the dolphin equivalent of tobacco or candy. The Professor had concocted it only after years of research; the animals loved the stuff so much that they would do almost anything to earn some.

Johnny knelt at the edge of the pool and waved the bait.

"Sputnik!" he called. "Here Sputnik!"

The little dolphin reared out of water and regarded him doubtfully. It looked at its mother, it looked at Professor Kazan and then again at Johnny. Though it appeared tempted, it would not approach him; instead, it gave a snort and promptly submerged, after which it started tearing around in the depths of the pool. It did not seem to be going anywhere in particular; like some human beings who cannot make up their minds, it was simply galloping off in all directions.

I think it's afraid of the Professor, Johnny decided. He walked along the edge of the pool until he had put fifty feet between himself and the scientist, then called to Sputnik again.

His theory worked. The dolphin surveyed the new situation, approved of it and swam slowly towards Johnny. It still looked a little suspicious as it raised its snout and opened its mouth, displaying an alarming number of small but needle-sharp teeth.

Johnny felt distinctly relieved when it took the reward without nipping his fingers. After all, Sputnik was a carnivore—and Johnny would not care to feed a half-grown lion cub with his bare hands.

The young dolphin hovered at the edge of the pool, obviously waiting for more. "No, Sputnik," said Johnny, remembering the Professor's words to Susie. "No, Sputnik. Food-time soon."

The dolphin remained only inches away, so Johnny reached out to stroke it. Though it shied a little, it did not withdraw, but permitted him to run his hand along its back. He was surprised to find that the animal's skin was soft and flexible, like rubber; nothing could have been more unlike the scaly body of a fish, and no one who stroked a dolphin could ever again forget that it was a warm-blooded mammal.

Johnny would have liked to remain playing with Sputnik, but the Professor was signalling to him. As they walked away from the pool, the scientist remarked jokingly: "My feelings are quite hurt. I've never been able to get near Sputnik—and did it first time. You seem to have a way with dolphins. Have you ever kept any pets before?"

"No, sir," said Johnny. "Except pollywogs, and that was a long time ago."

"Well," the Professor chuckled, "I don't think we can count *them*."

They had walked on for a few more yards, when Professor Kazan started speaking in a completely dif-

ferent tone of voice, addressing Johnny very seriously as an equal, not as a boy forty years younger.

"I'm a scientist," he said, "but I'm also a superstitious Russian peasant. Though logic tells me it's nonsense, I'm beginning to think that Fate sent you here. First there was the way you arrived, like something out of a Greek myth. And now Sputnik feeds out of your hand . . . Pure coincidence, of course—but a sensible man makes coincidences work for him."

What on earth is he driving at? wondered Johnny. But the Professor said no more until they were about to re-enter the Tech Block. Then. he suddenly remarked, with a slight chuckle, "I understand that you're in no great hurry to get home."

Johnny's heart skipped a beat.

"That's right, sir," he said eagerly. "I'd want to stay here as long as I can. I'd like to learn more about your dolphins."

"Not *mine*," corrected the Professor firmly. "Every dolphin is a person in his own right, an individual with more freedom than we can ever know on land. They don't belong to anyone. and I hope they never will. I want to help them not only for Science, but because it's a privilege to do so. Never think of them as animals. In their language they call themselves the People of the Sea, and that's the best name for them."

It was the first time that Johnny had seen the Professor so animated, but he could understand his feelings. For he owed his life to the People of the Sea, and it was a debt he hoped he could repay.

VIII

Around Dolphin Island lay a magic kingdom, the reef. In a lifetime, one could not exhaust its marvels. Johnny had never dreamed that such places existed, crammed with weird and beautiful creatures in such multitudes that the fields and forests of the land seemed dead by comparison.

At high tide, the reef was completely covered by the sea, and only the narrow belt of white sand surrounding the island was left exposed. But a few hours later. the transformation was incredible. Though the range between high and low tide was only a yard, the reef was so flat that water withdrew for miles. Indeed, in some directions, the tide retreated so far that the sea disappeared from sight, and the coral plateau was uncovered all the way to the horizon.

This was the time to explore the reef. All the equipment needed was a stout pair of shoes, a broad-brimmed hat to give protection from the sun and a face-mask. The shoes were far and away the most important item, for the sharp, brittle coral could inflict scars that easily became infected, and then took weeks to heal.

The first time that Johnny went out on to the reef, Mick was his guide. Because he had no idea what to expect, everything was very strange—and a little frightening. He did well to be cautious, until he knew his way around. There were

things on the reef—small, innocent-looking things—that could easily kill him if he was careless.

The two boys walked straight out from the beach on the western side of the island, where the exposed reef was only half a mile wide. At first, they crossed an uninteresting no-man's land of dead, broken coral—shattered fragments cast up by the storms of centuries. The whole island was built of such fragments, which the ages had covered with a thin layer of earth, then with grass and weeds, and at last with the standing trees.

They were soon beyond the zone of dead coral, and it seemed to Johnny that he was moving through a garden of strange, petrified plants. There were delicate twigs and branches of colored stone, and more massive shapes like giant mushrooms or fungi, so solid that it was safe to walk on them. Yet despite their appearance, these were not plants, but animals. When Johnny bent down to examine them, he could see that their surfaces were pierced by thousands of tiny holes. Each was the cell of a single coral polyp—a little creature like a small sea-anemone—and each cell had been built of lime secreted by the animal during its lifetime. When it died, the empty cell would remain, and the next generation would build upon it. And so the reef would grow, year by year, century by century. Everything that Johnny saw—the miles upon miles of flat tableland, glistening beneath the sun—was the work of creatures smaller than his fingernail.

And this was only one patch of coral in the whole immensity of the Great Barrier Reef, which stretched for more than a thousand miles along the Australian coast. Now Johnny understood a remark that he had heard Professor Kazan make — that the Reef was the mightiest single work of living creatures on the surface of the Earth.

It did not take Johnny long to discover that he was walking on other creatures besides corals. Suddenly, without the slightest warning, a jet of water shot into the air, only a few feet in front of him.

"Whatever did that?" he gasped.

Mick laughed at his amazement.

"Clam," he answered briefly. "It heard you coming."

Johnny caught the next one in time to watch it in action. The clam was about a foot across, embedded vertically in the coral so that only its open lips were showing. The body of the creature was partially out of its shell, and looked like a beautifully-colored piece of velvet, dyed the richest emeralds and blues. When Mick stamped on the rock beside it, the clam instantly snapped shut in alarm—and the water it shot upwards just missed Johnny's face.

"This is only a little feller," said Mick contemptuously. "You have to go deep to find the big ones. They grow up to four, five feet across. My grandfather says that when he was working on a pearling lugger out of Cooktown, he met a clam twelve feet across. But he's a great liar, and I don't believe it."

Johnny didn't believe in the five-

foot clams either; but as he found later, this time Mick was speaking the exact truth. It wasn't safe to dismiss *any* story about the reef and its creatures as pure imagination.

They had walked another hundred yards, accompanied by occasional squirts from annoyed clams, when they came to a small rock-pool. Because there was no wind to ruffle the surface, Johnny could see the fish darting through the depths as clearly as if they had been suspended in air.

They were all the colors of the rainbow, patterned in stripes and circles and spots as if some mad painter had run amok with his palette. Not even the most garish butterflies were more colorful and striking than the fish flitting in and out of the corals.

And the pool held many other inhabitants. When Mick pointed them out to him, Johnny saw two long feelers protruding from the entrance of a little cave; they were waving anxiously to and fro as if making a survey of the outside world.

"Painted crayfish," said Mick. "Maybe we'll catch him on the way back. They're very good eating—barbecued with lots of butter."

In the next five minutes, he had shown Johnny a score of different creatures. There were several kinds of beautifully patterned shells; five-armed starfish crawling slowly along the bottom in search of prey; hermit crabs hiding in the shells that they had made their homes; and a thing like a giant slug which squirted out a cloud of purple ink when Mick prodded it.

There was an octopus, the first that Johnny had ever seen. It was a baby, a few inches across, and was lurking shyly in the shadows, where only an expert like Mick could have spotted it. When he scared it out into the open, it slithered over the corals with a graceful flowing motion; changing its color from dull gray to a delicate pink as it did so. Much to his surprise, Johnny decided that it was quite a pretty little creature, though he expected that he would change his views if he met a really large specimen.

He could have spent all day exploring this one small pool, but Mick was in a hurry to move along. So they continued their trek towrds the distant line of the sea, zigzagging to avoid areas of coral too fragile to bear their weight.

Once, Mick stopped to collect a spotted shell the size and shape of a fir-cone. "Look at this," he said, holding it up to Johnny.

A black, pointed hook, like a tiny sickle, was vainly stabbing at him from one end of the shell.

"Poisonous," said Mick. "If *that* gets you. you'll be very sick. You could even die."

He put the shell back on the rocks, while Johnny looked at it thoughtfully. Such a beautiful, innocent-looking object—yet it contained death! He did not forget that lesson in a hurry.

But he also learned that the reef was perfectly safe to explore, if you followed two common-sense rules. The first was to watch where you

were stepping; the second was never to touch anything unless you *knew* that it was harmless.

At last they reached the edge of the reef, and stood looking down into the gently heaving sea. The tide was still out, and water was pouring off the exposed coral down hundreds of little valleys it had carved in the living rock. There were large, deep, pools here, open to the sea, and in them swam much bigger fish than any Johnny had seen before.

"Come along," said Mick, adjusting his face-mask. With scarcely a ripple, he slipped into the nearest pool, not even looking back to see if Johnny was following him into the water.

Johnny hesitated for a moment, decided that he did not want to appear a coward, and lowered himself gingerly over the brittle coral. As soon as the water closed above his head, he forgot all his fears. The submarine world he had looked into from above was even more beautiful now that he was actually inside it; he was a fish himself, swimming in a giant aquarium.

Very slowly, he followed Mick along the winding walls, between coral cliffs that grew further and further apart as they approached the sea. At first, the water was only two or three feet deep; then, quite abruptly, the bottom fell away almost vertically, and before Johnny realized what had happened, he was in water twenty feet deep. He had swum off the great plateau of the reef, and was heading for the open sea.

For a moment, he was really frightened. He stopped swimming and marked time in the water, looking back over his shoulder to check that safety was only a few yards behind him. Then he looked ahead once more—ahead and downwards.

It was impossible to guess how far he could see into the depths; a hundred feet at least. He was looking down a long, steep slope that led into a realm completely different from the brightly lit, colorful pools which he had just left. From a world sparkling with sunlight, he was staring into a blue, mysterious gloom. And far down in that gloom, huge shapes were moving back and forth in a stately dance.

"What are they?" he whispered to his companion.

"Groupers," said Mick. "Watch." Then, to Johnny's alarm, he slipped beneath the surface and arrowed down into the depths, as swiftly and gracefully as any fish.

He became smaller and smaller as he approached those moving shapes, and they seemed to grow in size by comparison. When he stopped, perhaps fifty feet down, he was floating just above them. He reached out, trying to touch one of the huge fish, but it gave a flick of its tail and eluded him.

Mick seemed to be in no hurry to return to the surface, but Johnny had taken at least a dozen breaths while he was watching the performance. At last, to the great relief of his audience, Mick began to swim slowly upwards, waving good-bye to the groupers as he did so.

"How big were those fish?" asked Johnny when Mick had popped out of the water and recovered his breath.

"Oh, only eighty, a hundred pounds. You should see the really big ones up north. My grandfather hooked an eight-hundred-pounder off Cairns."

"But you don't believe him," grinned Johnny.

"But I do," Mick grinned back. "*That* time, he had a photograph to show it."

As they swam back to the edge of the roof, Johnny glanced down once more into the blue depths, with their coral boulders, their overhanging terraces and the ponderous shapes swimming slowly among them. It was a world as alien as another planet, even though it was here on his own Earth. And it was a world that, because it was so utterly strange, filled him with curiosity and with fear.

There was only one way of dealing with both these emotions. Sooner or later, he would have to follow Mike down the blue mysterious slope.

IX

"You're right, Professor," said Dr. Keith, "though I'm darned if I know how you could tell. There's no large school of dolphins within the range of our hydrophones.

"Then we'll go after them in the *Flying Fish*."

"But where shall we look? They may be anywhere inside ten thousand square miles."

"That's what the Survey Satellites are for," Professor Kazan answered. "Call Woomera Control and ask them to photograph an area of fifty miles radius round the island. Get them to do it as soon after dawn as possible. There must be a satellite going overhead sometime tomorrow morning."

"But why after dawn?" asked Keith. "Ah I see—the long shadows will make them easy to spot."

"Of course. It will be quite a job searching such a huge area. And if we take too long over it, they'll be somewhere else."

Johnny heard about the project soon after breakfast, when he was called to help with the reconnaissance. It seemed that Professor Kazan had bitten off a little more than he could chew, for the island's picture-receiver had delivered twenty-five separate photographs, each covering an area of twenty miles on a side, and each showing an enormous amount of detail. They had been taken about an hours after dawn from a low-altitude meteorological satellite five hundred miles up; as there were no clouds to obscure the view, they were of excellent quality. The powerful telescopic cameras had brought the Earth to within only five miles.

Johnny had been given the least important, but most interesting, photo in the mosaic to examine. This was the central one, showing the island itself: it was fascinating to go over it with a magnifying glass, and to see the buildings and paths

and boats leap up to meet the eye. Even individual people could be detected as small black spots.

For the first time, Johnny realized the full enormous extent of the reef around Dolphin Island. It stretched for miles away to the east, so that the island itself appeared merely like the point in a punctuation mark. Although the tide was in, every detail of the reef could be seen through the shallow water that covered it. Johnny almost forgot the job he was supposed to be doing, as he explored the pools and submarine valleys, and the hundreds of little canyons that had been worn by water draining off the reef shelf at low tide.

The searchers were in luck. The school was spotted sixty miles to the southeast of the island, almost on the extreme edge of the photo-mosaic. It was quite unmistakeable. There were scores of dark bodies shooting along the surface, some of them frozen by the camera as they leaped clear of the sea. And one could tell from the widening Vee's of their wakes that they were heading west.

Professor Kazan looked at the photograph with satisfaction. "They're getting closer," he said. "If they've kept to that course, we can meet them in an hour. Is the *Flying Fish* ready?"

"She's still refuelling, but she can leave in thirty minutes."

The Professor glanced at his watch; he seemed as excited as a small boy who had been promised a treat.

"Good," he said briskly. "Everyone at the jetty in twenty minutes."

Johnny was there in five. It was the first time he had even been aboard a boat (the *Santa Anna*, of course, hardly counted, for he had seen so little) and he was determined not to miss anything. He had already been ordered down from the cruiser's crow's-nest, thirty feet above the deck, when the Professor came aboard—smoking a huge cigar, wearing an eye-searing Hawaiian shirt and carrying camera, binoculars and briefcase. "Let's go!" he said. The *Flying Fish* went.

She stopped again at the edge of the reef, when she had emerged from the channel cut through the coral.

"What're we waiting for?" Johnny asked Mick, as they leaned over the hand-rails and looked at the receding island.

"I'm not sure," Mick answered, "but I can guess — ah, here they come! The Professor probably called them through the underwater speakers, though they usually turn up anyway."

Two dolphins were approaching the *Flying Fish*, jumping high in the air as if to draw attention to themselves. They came right up to the boat—and, to Johnny's surprise, were promptly taken aboard. This was done by a crane which lowered a canvas sling into the water. Each of the dolphins swam into it in turn, was raised on deck and dropped into a small tank of water at the stern. There was barely room for the two animals in this little aquarium, but they seemed perfectly at ease. Clearly, they had done this many times before.

"Einar and Peggy," said Mick. "Two of the brightest dolphins we ever had. The Professor let them loose several years ago, but they never go very far away."

"How can you tell one from the other?" asked Johnny. "They all look the same to me."

Mick scratched his fuzzy head.

"Now you ask me, I'm not sure I can say. But Einar's easy—see that scar on his left flipper? And his girl friend is usually Peggy, so there you are. Yes, I *think* it's Peggy," he added doubtfully.

The *Flying Fish* had picked up speed, and was now moving away from the island at about ten knots. Her skipper (one of Mick's numerous uncles) was waiting until they were clear of all underwater obstacles before giving her full throttle.

The reef was two miles astern when he let down the big skis and opened up the hydro-jets. With a surge of power, the *Flying Fish* lurched forward, then slowly gained speed and rose out of the water. In a few hundred yards, the whole body of the boat was clear of the sea, and her drag had been reduced to a fraction of its normal value. She could skate above the waves at fifty knots, with the same power that she needed to plow through them at ten.

It was exhilarating to stand on the open foredeck—keeping a firm grip on the rigging—and to face the gale that the boat made as she skimmed the ocean. But after a while, somewhat windswept and breathless, Johnny retreated to the sheltered space behind the bridge, and watched Dolphin Island sink behind the horizon. Soon it was only a green-covered raft of white sand floating on the sea; then it was a narrow bar on the skyline; then it was gone out of sight.

They passed several similar, but smaller, islands in the next hour. According to Mick, they were all quite uninhabited. From a distance they looked so delightful that Johnny wondered why they had been left empty in this crowded world. He had not been on Dolphin Island long enough to realize all the problems of power, water and supplies that were involved if one wished to establish a home on the Great Barrier Reef.

There was no land in sight when the *Flying Fish* suddenly slowed down, plopped back into the water and came to a dead halt.

"Quiet, please, everybody!" shouted the skipper. "Proff wants to do some listening!"

He did not listen for long. After about five minutes, he emerged from the cabin, looking rather pleased with himself.

"We're on the right track," he announced. "They're within five miles of us, chattering at the tops of their voices."

The *Flying Fish* set off again, a few points to the west of her original course. And in ten minutes, she was surrounded by dolphins.

There were hundreds of them, making their easy, effortless way across the sea. When the *Flying Fish* came to rest, they crowded round her as if they had been expecting

such a visit; perhaps, indeed, they had.

The crane was brought into action and Einar was lowered over the side. But only Einar, for as the Professor explained, "There'll be a good many boisterous males down there, and we don't want any trouble while Einar's scouting around for us." Peggy was indignant, but there was nothing she could do about it except splash everyone who came within range.

This, thought Johnny, must be one of the strangest conferences that had ever taken place. He stood with Mick on the foredeck, leaning over the side and looking down at the sleek, dark-gray bodies gathered round Einar. What were they saying? Could Einar fully understand the language of his deep-sea cousins —and could the Professor understand Einar?

Whatever the outcome of this meeting, Johnny felt a deep gratitude towards these friendly, graceful creatures. He hoped that Professor Kazan could help them, as they had helped him.

After half an hour, Einar swam back into the sling and was hoisted aboard, to Peggy's great relief—as well as to the Professor's.

"I hope most of that was just gossip," he remarked. "Thirty minutes of solid Dolphin talk means a week's work, even with all the help the computer can give me."

Below deck, the engines of the *Flying Fish* roared to life, and once again the ship lifted slowly out of the water. The dolphins kept up with it for a few hundred yards, but were soon hopelessly outpaced. This was one speed contest in which they could not compete; the last that Johnny saw of them was a frieze of distant, dark bodies, leaping against the skyline, already miles astern.

X

Johnny began diving lessons at the edge of the jetty, among the anchored fishing boats. The water was crystal-clear, and as it was only four or five feet deep he could make all his beginner's mistakes in perfect safety.

Mick was not a very good teacher. He had been able to swim and dive all his life, and could no longer remember his early troubles. To him, it seemed incredible that *anyone* could fail to go effortlessly down to the sea-bed, or could not remain there in complete comfort for two or three minutes. So he grew quite impatient when his pupil remained bobbing about on the surface like a cork, with his legs kicking up in the air, unable to submerge more than a few inches.

Before long, however, Johnny got the right idea. He learned *not* to fill his lungs before a dive; that turned him into a balloon, and gave him so much bouyancy that he simply couldn't go under. Next he found that if he threw his legs clear out of the water, their unsupported weight drove him straight down. Then, once his feet were well below the surface, he could start kicking with his flippers and could dart off easily in any direction.

After a few hours of practice he

lost his initial clumsiness. He discovered the delights of swooping and gliding in a weightless world, like a spaceman in orbit. He could do loops and rolls, or hover motionless at any depth. But he could not stay under for even half as long as Mick; like everything that was worth doing, that would take time and practice.

He knew now that he had the time. Professor Kazan, who for so apparently mild-mannered a person wielded a great deal of influence, had seen to that. Wires had been pulled, forms had been filled in and Johnny was now officially on the island establishment. His aunt had been only too eager to agree, and had gladly forwarded the few belongings he valued. Now that he was on the other side of the world, and could look back at his past life with more detachment, Johnny wondered if some of the fault had been his. Had he really tried to fit into the household that had adopted him? He knew that his widowed aunt had not had an easy time. When he was older, he might understand her problems better, and perhaps they could be friends. But whatever happened, he did not for one moment regret that he had run away.

It was as if a new chapter had opened in his life—one that had no connection with anything that had gone before. He realized that until now he had merely existed· he had not really *lived*. Having lost those he loved while he was so young, he had been scared of making fresh attachments. Worse than that, he had become suspicious and self-centered But now he was changing, as the warm communal life of the island swept away the barriers of his reserve.

The fisherfolk were friendly, good-natured and not too hard-working. There was no need for hard work, in a place where it was never cold and one had only to reach into the sea to draw out food. Every night, it seemed, there would be a dance or a movie show or a barbecue on the beach. But when it rained —as it sometimes did, at the rate of several inches an hour—there was always TV. Thanks to the relay satellites, Dolphin Island was less than half a second from any city on Earth; the islanders could see everything that the rest of the world had to offer, while still being comfortably detached from it. They had most of the advantages of civilization, and few of its defects.

But it was not all play for Johnny by any means. Like every other islander under 20 (and many of them over that age) he had to spend several hours a day at school.

Professor Kazan was keen on education, and the island had twelve teachers—two human, ten electronic. This was about the usual proportion, since the invention of teaching machines in the middle of the 20th Century had at last put education on a scientific basis.

All the machines were coupled to OSCAR, the big computer which did the Professor's translating, handled most of the island's administration and bookkeeping and could play championship chess on demand.

Soon after Johnny's arrival, OSCAR had given him a thorough quiz to discover his standard of education, then prepared suitable instruction tapes and printed a training program for him. Now he spent at least three hours a day at the keyboard of a teaching machine, typing out his responses to the information and questions flashed on the screen. He could choose his own time for his classes, but he knew better than to skip them. If he did so, OSCAR reported it at once to the Professor—or, worse still, to Dr. Keith.

At the moment, the two scientists had much more important matters to bother about. After twenty-four hours of continuous work, Professor Kazan had translated the message that Einar had brought back—and it had placed him fairly and squarely on the horns of a dilemma. The Professor was a man of peace. If there was one phrase that summed him up, it was "kind-hearted." And now, to his great distress, he was being asked to take sides in a war.

He glared at the message that OSCAR had typed out, as if hoping that it would go away. But he had only himself to blame: after all, *he* was the one who had insisted on going after it.

"Well, Professor," asked Dr. Keith who, tired and unshaven, was slumping over the tape control desk. "Now what are we going to do?"

"I haven't the faintest idea," said Professor Kazan. Like most good scientists, and very few bad ones, he was never ashamed to admit when he was baffled. "What would you suggest?"

"It seems to me that this is where the Advisory Committee would be useful, once in a while. Why not talk it over with a couple of the members?"

"That's not a bad idea," said the Professor. "Let's see who we can contact at this time of day." He pulled a list of names out of a drawer and started running his finger down the columns.

"Not the Americans—they'll all be sleeping. Ditto most of the Europeans. That leaves—let's see—Saha in Delhi, Hirsch in Tel Aviv, Abdullah in—"

"That's enough!" interrupted Dr. Keith. "I've never known a conference-call do anything useful with more than five people in it."

"Right. We'll see if we can get these."

A quarter of an hour later, five men scattered over half the globe were talking to each other as if they were all in the same room. Professor Kazan had not asked for vision, though that could have been provided if necessary. Sound was quite sufficient for the exchange of views he wanted.

"Gentlemen," he began, after the initial greetings, "we have a problem. It will have to go to the whole Committee before long—and perhaps much higher than that—but I'd like your unofficial opinions first."

"Ha!" said Dr. Hassim Abdullah, the great Pakistani biochemist, from his laboratory in Karachi. "You must have asked me for at least a dozen 'unofficial opinions' by now,

and I don't recall that you took the slightest notice of any of them."

"This time I may," answered the Professor. The solemnity in his tone warned his listeners that this was no ordinary discussion.

Quickly, he outlined the events leading up to Johnny's arrival on the island. They were already familiar to his audience, for this strange rescue had received world-wide publicity. Then he described the sequel —the voyage of the *Flying Fish*, and Einar's parley with the deep-sea dolphins.

"That may go down in the history book," he said, "as the first conference between Man and an alien species. I'm sure it won't be the last, so what we do now may help to shape the future—in space, as well as on Earth.

"Some of you, I know, think I've overestimated the intelligence of dolphins. Well, now you can judge for yourselves. They've come to us, asking for help against the most ruthless of their enemies. There are two creatures in the sea that normally attack them. The shark, of course, is one. but he's not a serious danger to a school of adult dolphins; they can kill him by ramming him in the gills. Because he's only a stupid fish—stupid even *for* a fish —they had nothing but contempt and hatred for him.

"The other enemy is a different matter altogether—because he's their cousin. the killer whale, *Orcinus Orca*. It's not far wrong to say that *Orca* is a giant dolphin who's turned cannibal. He grows up to thirty feet in length, and specimens have been found with twenty dolphins in their stomachs. Think of that—an appetite that needs twenty dolphins at a time to satisfy it!

"No wonder that they've appealed to us for protection. They know that we've got powers they can't match —our ships have been proof of that for centuries. Perhaps, all these ages, their friendliness to us has been an attempt to make contact, to ask for our help in their continual war—and only now have we had the intelligence to understand them. If that's true, I feel ashamed of myself—and my species."

"Just a minute, Professor," interrupted Dr. Saha, the Indian physiologist. "This is all very interesting, but are you quite certain that your interpretation is correct? Don't get upset—but we all know your affection for dolphins, which most of us share. Are you sure you haven't put your own ideas into their mouths?"

Some men might have been annoyed by this, even though Dr. Saha had spoken as tactfully as possible. But Professor Kazan replied mildly enough.

"There's no doubt. Ask Keith."

"That's correct," Dr. Keith confirmed. "I can't translate Dolphin as well as the Professor, but I'd stake my reputation on this."

"Anyway," continued Professor Kazan. "My next point should prove that I'm not hopelessly pro-dolphin, however fond of them I happen to be. I'm not a zoologist, but I know something about the balance of nature. Even if we *could* help them, *should* we? Dr. Hirsch. you may have some ideas on that."

The Director of the Tel-Aviv Zoo took his time in answering; he was still a little sleepy, for it was not yet dawn in Israel.

"This is a hot potato you've handed us," he grumbled. "And I doubt if you've thought of all the complications. In the natural state, all animals have enemies—predators—and it would be disastrous for them if they didn't. Look at Africa, for example, where you've got lions and antelopes sharing the same territory. Suppose you shot all the lions. What would happen then? I'll tell you: the antelopes would multiply until they stripped all the food, and then they'd starve.

"Whatever the antelopes think about it, the lions are very good for them. Besides preventing them from outrunning their food supplies, they keep them fit, by eliminating the weaker specimens. That's Nature's way It's cruel by our standards, but effective."

"The analogy breaks down," said Professor Kazan. "We're not dealing with wild animals. but intelligent people They're not *human* people, but they're still people. So the correct analogy would be with a tribe of peaceable farmers who are continuously ravaged by canibals. Would you say that the cannibals are good for the farmers—or would you try to reform them?"

Hirsch chuckled.

"Your point is well taken, though I'm not sure how you propose to reform killer whales."

"Just a minute," said Dr Abdullah. "You're getting outside my territory How bright *are* killer whales? Unless they really are as intelligent as dolphins, the analogy between human tribes breaks down, and there's no moral problem."

"They're intelligent enough," Professor Kazan answered unhappily "The few studies that have been made suggest that they're at least as intelligent as the other dolphins."

"I suppose you know that famous story about the killers who tried to catch the Antarctic explorers?" said Dr Hirsch. The other admitted ignorance, so he continued. "It happened back at the beginning of the last century, on one of the early expeditions to the South Pole—Scott's, I think Anyway a group of the explorers were on the edge of an icefloe, watching some killer whales in the water. It never occurred to them that they were in any danger—until suddenly the ice beneath them started to shatter The beasts were ramming it from beneath, and the men were lucky to jump to safety before they broke right through the ice. It was about a yard thick, too."

"So they'll eat men, if they have the chance," said someone. "You can count my vote against them."

"Well, one theory was that they mistook the fur-clad explorers for penguins, but I'd hate to put it to the test. In any case, we're fairly sure that several skin-divers have been taken by them."

There was a short silence while everyone digested this information. Then Dr. Saha started the ball rolling again.

"Obviously, we need more facts

before we come to any decisions. Someone will have to catch a few killer whales and make a careful study of them. Do you suppose you could make contact with them, Nikolai, as you have with dolphins?"

"Probably, though it might take years."

"We're getting away from the point," said Dr. Hirsch impatiently. "We've still got to decide *what* we should do, not *how* we do it. And I'm afraid there's another thundering big argument in favor of killer whales, and against our dolphin friends."

"I know what it is," said Professor Kazan, "but go ahead."

"We get a substantial percentage of our food from the sea—about a hundred million tons of fish per annum. Dolphins are our direct competitors. What they eat, we can't. You say there's a war between the killer whales and the dolphins, but there's also a war between dolphins and fishermen who get their nets broken and their catches stolen. In *this* war, the killer whales are our allies. If they didn't keep the dolphin population under control, there might be no fish for us."

Oddly enough, this did not seem to discourage the Professor. Indeed, he sounded positively pleased. -

"Thank you, Mordecai—you've given me an idea. You know, of course, that dolphins have sometimes helped men to round up schools of fish, sharing the catch afterwards? It used to happen with the aborigines here in Queensland, two hundred years ago."

"Yes, I know about that. Do you mean to bring the custom up to date?"

"Amongst other ideas. Thank you very much, gentlemen; I'm extremely grateful to you. As soon as I've carried out a few experiments, I'll send a memorandum to the whole Committee and we'll have a full-scale meeting."

"You might give us a few clues, after waking us up at this time in the morning."

"Not yet, if you don't mind—until I know which ideas are utterly insane, and which ones are merely crazy.

"Give me a couple of weeks. And meanwhile, you might inquire if anyone has seen a killer whale that I can borrow. Preferably one that won't eat more than a thousand pounds of food a day."

XI

Johnny's first trip across the reef at night was an experience he remembered all his life. The tide was out, there was no moon, and the stars were brilliant in a cloudless sky when he and Mick set off from the beach equipped with waterproof flashlights, spears, facemasks, gloves and sacks which they hoped to fill with c.ayfish. Many of the reef's inhabitants left their hiding-places only after dark, and Mick was particularly anxious to find some rare and beautiful shells which never appeared in the daytime. He made a good deal of money selling these to mainland collectors—quite illegally, as the island fauna was supposed to be protected under the Queensland Fisheries Act.

They crunched across the exposed coral. with their flashlights throwing pools of lights ahead of them—pools that seemed very tiny in the enormous darkness of the reef. The night was so black that by the time they had gone a hundred yards, there was no sign of the island. Luckily, a red warning beacon on one of the radio masts served as a landmark Without this to give them their bearings, they would have been hopelessly lost. Even the stars were not a safe guide, for they swung across much of the sky in the time it took to reach the edge of the reef and to return.

In any event, Johnny had to concentrate so hard on picking a way across the brittle shadowy coral worlds that he had little time to glance up. He was struck by something so strange that for a moment he could only stare at it in amazement.

Reaching up from the western horizon, almost to a point overhead, was an enormous pyramid of light. It was faint but perfectly distinct; one might have mistaken it for the glow of a far-off city. Yet there were no cities for a hundred miles in that direction—only empty sea.

"What on earth is *that?*" asked Johnny at last. Mick, who had gone on ahead while he was staring at the sky, did not realize for a moment what was puzzling him.

"Oh," he said, "you can see it almost every clear night when there's no Moon. It's something out in space, I think. Can't you see it from your country?"

"I've never noticed it—but we don't have nights as clear as this."

So the boys stood gazing, flashlights extinguished for the moment, at a heavenly wonder that few men have seen since the glare and smoke of cities spread across the world, and dimmed the splendor of the skies. It was the Zodiacal Light, which the astronomers puzzled over for ages until they discovered that it was a vast halo of dust around the Sun.

Soon afterwards Mick caught his first crayfish. It was crawling across the bottom of a shallow pool, and the poor creature was so confused by the electric glare that it could do nothing to escape. Into Mick's sack it went; and soon it had company. Johnny decided that this was not a very sporting way to catch crays, but that would not spoil his enjoyment when he ate them later.

There were many other hunters foraging over the reef, for the beams of the flashlights revealed thousands of small crabs. Usually they would scuttle away as Johnny and Mick approached, but sometimes they would stand their ground and wave threatening claws at the two approaching monsters. Johnny wondered if they were brave or merely stupid.

Beautifully marked cowries and cone-shells were also prowling over the coral. It was hard to realize that to the yet smaller creatures of the reef, even these slow-moving molluscs were deadly beasts of prey. All the wonderful and lovely world beneath Johnny's feet was a battle-

field; every instant, countless murders and ambushes and assassinations were taking place in the silence around him.

They were now nearing the edge of the reef, and were splashing through water a few inches deep. It was full of phosphorescence, so that with every step stars burst out beneath their feet. Even when they sent sparkles of light rippling across the surface. Yet when they examine the water with the beams of their flashlights, it appeared to be completely empty. The creatures producing this display of luminescence were too tiny, or too transparent, to be seen.

Now the water was deepening, and in the darkness ahead of him, Johnny could hear the roar and thunder of waves beating against the edge of the reef. He moved slowly and cautiously, for though he must have been over this ground a dozen times by day, it seemed completely strange and unfamiliar in the narrow beams of the flashlights. He knew, however, that at any moment he might stumble into some pool or flooded valley.

Even so, he was taken by surprise when the coral suddenly fell away beneath his feet, and he found himself standing at the brink of a dark, mysterious pool. The beam of the torch seemed to penetrate only a few inches; though the water was crystal clear, the light was quickly lost in its depths.

"Sure to find some crays here," said Mick. He lowered himself into the pool with scarcely a splash, leaving Johnny standing above, half a mile from land, in the booming darkness of the reef.

There was no need for him to follow; if he wished, he could remain here until Mick had finished. The pool looked very sinister and uninviting, and it was so easy to imagine all sorts of monsters lurking in its depths.

But this was ridiculous, Johnny told himself. He had probably dived in this very pool and had already met all its inhabitants. They would be much more scared of him than he would be of them.

He inspected his flashlight carefully, and lowered it into the water to check that it continued shining when submerged. Then he adjusted his facemask, took half a dozen fast, deep breaths and followed Mick.

The light from the torch was surprisingly powerful, now that both he and it were on the same side of the water-barrier. But it revealed only the small patch of coral or sand upon which it fell; outside its narrow cone, everything was blackness—mystery—menace. In these initial seconds of Johnny's first night dive, panic was not far away. He had an almost irresistible impulse to look over his shoulder, to see if anything was following him...

After a few minutes, however, he got control of his nerves. The sight of Mick's exploring beam of light, flashing and flickering through the submarine darkness a few yards away, reminded him that he was not alone. He began to enjoy peeping into caves and under ledges, and

coming face to face with startled fish. Once he met a beautifully patterned moray eel, that snapped angrily from its hole in the rocks, and waved its snake-like body in the water Johnny did not care for those pointed teeth, but he knew that morays never attacked unless they were molested—and he had no intention of making enemies on this dive.

The pool was full of strange noises, as well as strange creatures. Every time Mick banged his spear against a rock, Johnny could hear the sound more loudly than if he had been in the air. He could also hear—and sometimes feel through the water—in the thudding of the waves against the edge of the reef, only a few yards away

Suddenly, he became aware of a new sound, like the patter of tiny hailstones. It was faint, but very clear, and seemed to come from close at hand. At the same moment, he noticed that the beam of his flashlight was beginning to fill with swirling fog.

Millions of little creatures, most of them no larger than grains of sand, had been attracted by the light and were hurling themselves against the lens, like moths into a candle Soon they were coming in such countless number that the beam was completely blocked. Those that missed the flashlight made Johnny's exposed skin tingle as they battered against him. They were moving at such a speed that he could not be certain of their shapes, though he thought that some of them looked rather like tiny shrimps, about the size of rice grains.

These creatures, Johnny knew, must be the larger and more active of the plankton onimals, the basic food of almost all the fish in the sea. He was forced to switch off his light until they had dispersed, and he could no longer hear—or feel—the patter of their myriad bodies. As he waited for the living fog to drift away, he wondered if any larger creatures might be attracted by his light Sharks, for example; he was quite prepared to face them in the daytime, but it was a very different matter after sunset . .

When Mick started to climb out of the pool, he was glad to follow. Yet he would not have missed this experience for anything: it had shown him another of the sea's many faces. Night could transform the world below the waves, as it transformed the world above. No one knew the sea who explored it only by daylight.

Indeed, only a small part of the sea ever knew daylight Most of it was a realm of eternal darkness, for the rays of the sun could reach only a few hundred feet into its depths before being utterly absorbed. No light ever shone in the abyss—except the cold luminescence of the nightmare creatures who lived there, in a world without sun or seasons.

"What have you caught?" Johnny asked Mick when they had both clambered out of the pool.

"Six crayfish, two tiger cowries, three spider shells and a volute I've never seen before Not a bad haul —though there was a big cray I

couldn't reach. I could see his feelers, but he backed into a cave."

They started to walk homeward across the great plateau of living coral, using the beacon on the radio mast as their guide. That bright red star seemed miles away in the darkness, and Johnny was uncomfortably aware that the water through which he was wading had become much deeper while they had been exploring the pool. The tide was returning. It would be very unpleasant to be caught here, so far from land while the sea went pouring in ahead of them.

But there was no danger of that; Mick had planned the excursion carefully. He had also, quite deliberately, used it to test his new friend, and Johnny had passed with flying colors.

There were some people whose nerves would never allow them to dive at night, when they could see only the tiny oval of a flashlight beam and could imagine anything in the remaining darkness. Johnny must have felt scared, as everyone did for the first time; but he had conquered his fears.

Soon he would be ready to leave these safe and sheltered pools, and to do some *real* diving off the edge of the reef, in the ever-changing, unpredictable waters of the open sea.

XII

It was two weeks before anyone on the island saw the first of the Professor's ideas in action. There were, of course, many rumors, for as soon as the details of the dolphins' request were released, everyone had his own theories about what should be done.

The scientists of the research station were, as might be expected, actively pro-dolphin. Dr. Keith summed up their views when he remarked, "Even if killer whales do turn out to be the more intelligent of the two, I'll back the dolphins. They're much nicer people, and you don't choose your friends for their brains." When Johnny heard this he was quite surprised, as he still did not care for Dr. Keith's patronizing attitude, and regarded him as a cold fish with few human emotions. However, he must have *some* good qualities for Professor Kazan to have made him his assistant; by this time anything that the Professor did was, as far as Johnny was concerned, beyond criticism.

The fishermen were divided. They too liked dolphins, but recognized them as competitors, for they knew at first hand the argument that Dr. Hirsch had put forward. There were times when dolphins had torn holes in their nets, stolen most of their catch and made them say things about his friends that Professor Kazan would have been very unhappy to hear. If killer whales kept the dolphin population from getting too large, then good luck to them.

Johnny listened to these discussions with interest, but had already made up his mind. No mere facts were going to make him change it. When someone had saved your life, that settles the matter. Nothing that anyone else can say will turn you against him.

By this time, Johnny had become quite a skillful diver, though he knew that he would never be as good as Mick. He had mastered the use of flippers, facemask and snorkel, and could now stay underwater for periods that would have astonished him only a few weeks ago. Though the healthy, open-air life was making him bigger and stronger, this was only part of the story. The first times he had dived, he had been nervous, but now he felt as much at home undersea as on the land. He had learned to move smoothly and effortlessly through the water, and so could make a single lungful of air last much longer than when he had started his lessons. Whenever he felt like it, he could stay underwater for a full minute without straining himself—and Mick had taught him the simple but dangerous trick that would extend this time to three or four minutes in an emergency.

He was doing all this for fun, and because diving was skill worth acquiring for its own sake. Not until Professor Kazan called for him one afternoon did he learn how quickly his hobby would be of use.

The Professor looked tired, but cheerful, as if he had been working night and day on some project that was going well. "Johnny," he said, "I've a job for you, which I'm sure you'll enjoy. Take a look at this."

The piece of apparatus he pushed across his desk was something like a very small adding-machine with twenty-five buttons arranged in five rows of five each. It was only about three inches square, had a curved, sponge-rubber base, and was fitted with straps and buckles. Obviously, it was intended to be worn on the forearm, like an overgrown wristwatch.

Some studs were blank, but most of them carried a single word engraved in large, clear letters. As he ran his eye cross the face of the little keyboard, Johnny began to understand the purpose of the device.

The words he read were: NO, YES, UP, DOWN, FRIEND, RIGHT, LEFT, FAST, SLOW, STOP, GO, FOLLOW, COME, DANGER! and HELP! They were arranged logically over the face of the keyboard; thus UP and DOWN were at top and bottom respectively. LEFT and RIGHT actually on the left and right. Opposing words like NO and YES or STOP and GO, were as far apart as possible so that the wrong stud could not be pressed by mistake. The studs marked DANGER! and HELP! were covered by guards that had to be slipped aside before they could be operated.

"There's a lot of neat solid-state electronics inside that," explained the Professor, "and a battery good for fifty hours operation. When you press one of those buttons, you won't hear anything except a faint buzz. A dolphin, however, will hear the word printed on the button, in its own language—at least, we hope it will. What happens then is what we want to find out.

"If you're wondering about the blank studs, we've kept them until we decided what other words we

need. Now, I want you to take this gadget—we'll call it a Mark I Communicator—and practice swimming and diving with it until it seems part of you. Get to know which stud is which, until you can find the one you want with your eyes shut. Then come back here, and we'll move on to the next experiment."

Johnny was so excited that he sat up most of the night pressing buttons and memorizing the layout of the keyboard. When he presented himself to the Professor immediately after breakfast, the scientist looked pleased but not surprised.

"Get your flippers and facemask," he said, "and meet me at the pool."

"Can I bring Mick?" asked Johnny.

"Of course, as long as he keeps quiet and doesn't make a nuisance of himself."

Mick was intrigued by the communicator, but not too happy that it had been entrusted to Johnny.

"I don't see why he's given it to *you* to try out," he said.

"That's obvious," Johnny answered very smugly. "Dolphins like me."

"Then they're not as intelligent as the Professor thinks," retorted Mick. Normally, this would have started a quarrel, though not a fight, for the simple reason that Mick was almost twice as heavy as Johnny, and considerably more than twice as strong.

By a coincidence that was not particularly odd, Professor Kazan and Dr. Keith were discussing the same problem as they walked down to the pool, heavily laden with equipment.

"Sputnik's behavior toward Johnny," said the Professor, "is right in line with the cases in the history books. When a wild dolphin makes friends with a human being, it's almost always with a child. Look at the famous 'Boy on a Dolphin' statue."

"And Johnny's exceptionally small for his age," added Dr. Keith "I suppose they feel happier with children than with adults, because grownups are big and possibly dangerous. A child, on the other hand, is just about the same size as a young dolphin."

"Exactly," said the Professor. "And the dolphins who make friends with bathers at seaside resorts are probably females who've lost their young. A human child may be a kind of substitute."

"Here comes our Dolphin-boy," said Dr. Keith, "looking very pleased with himself."

"Which is more than one can say for Mick. I'm afraid I've hurt his feelings. But Sputnik's definitely scared of him. I let him go swimming in the pools once, and even Susie wasn't happy. You can keep him busy, helping you with the movie camera."

A moment later the boys had caught up with the scientists, and Professor Kazan gave them his instructions. "I want complete silence when we're at the pool," he said. "Any talking may ruin the experiment. Dr. Keith and Mick will set up the camera on the east side, with the sun behind them. I'll go to the

other side, while you get into the water and swim to the middle. I expect Susie and Sputnik will follow you, but whatever happens, stay there until I wave you to go somewhere else. Understand?"

"Yessir," answered Johnny, very proud of himself.

The Professor was carrying a stack of large, white cards, bearing the same words as the studs on the communicator.

"I'll hold up each of these in turn," he said. "When I do so, you press the right button—and make sure it *is* the right button. If I hold up two cards at once, press the button for the *top* card first, then the button for the lower one immediately afterward. Is that clear?"

Johnny nodded.

"At the very end, I want to try something drastic. We'll give the DANGER! signal first, then the HELP! one a few seconds later. When you press that, I want you to splash around as if you're drowning, and sink slowly to the bottom. Now, repeat all that back to me."

When Johnny had finished doing this, they had reached the wire-netting fence around the pool and all conversation ceased. But there was still plenty of noise, for Susie and Sputnik welcomed them with loud squeaks and splashings.

Professor Kazan gave Susie her usual tidbit, though Sputnik kept his distance and refused to be tempted. Then Johnny slipped into the water, and swam slowly to the center of the pool.

The two dolphins followed. keeping about twenty feet away. When Johnny looked back, with his head below the surface, he was able to appreciate for the first time the graceful way in which their rubbery bodies flexed up and down as their flukes propelled them through the water.

He floated in mid-pool, one eye on the Professor, the other on the dolphins, waiting for the cards to go up. The first was FRIEND.

Thta ws no doubt that the dolphins heard that, for they became quite excited. Even to Johnny's ears, the buzzing of the communicator was clear enough, though he knew that he could hear only the low-frequency sounds that it was making, not the ultrasonic noise that conveyed most of the meaning to the dolphins.

FRIEND went up again, and again Johnny pressed the button. This time, to his delight, both dolphins started to move toward him. They swam to within only five feet, and remained there looking at him with their dark intelligent eyes He had the distinct impression that they already guessed the purpose of this experiment, and were waiting for the next signal.

That was the word LEFT, which produced a wholly unexpected result. Susie immediately swung round to her left. Sputnik turned to his *right*, and Professor Kazan started calling himself "idiot" in each of fourteen languages he spoke fluently. He had just realized that if you give an order, you should make sure that it has only one interpretation. Sputnik had assumed that Johnny meant

his own left—the more self-centered Susie had assumed that he meant hers.

There was no ambiguity about the next order—DOWN. With a flurry of flukes, the dolphins dived to the bottom of the pool. They remained there patiently until Johnny gave the signal UP; he wondered how long they would have stayed there if he hadn't given it

It was obvious that they were enjoying this new and wonderful game. Dolphins are the most playful of all animals, and will invent their own games even if none are shown to them. And perhaps Susie and Sputnik already realized that this was more than fun—it was the beginning of a partnership that might benefit both races.

The first pair of cards went up —GO FAST. Johnny pressed the two buttons one after the other, and the second buzz had scarcely ceased to sound in his ears before both Susie and Sputnik were racing across the pool. While they were still travelling at speed they obeyed RIGHT and LEFT (*their* rights and lefts this time). checked for SLOW and came to a halt for STOP.

The Professor was wild with delight, and even the unemotional Dr. Keith was grinning all over his face as he recorded the scene. while Mick was leaping about the edge of the pool like one of his ancestors at a tribal dance. But suddenly everyone became solemn: the DANGER! card went up.

What would Susie and Sputnik do now? wondered Johnny as he pressed the button.

They just laughed at him. They knew that it was a game, and they weren't fooled. Their reactions were far quicker than his, they were familiar with every inch of the pool, and if there had really been danger here, they would have spotted it long before any sluggish human intelligence could have warned them.

Then Professor Kazan made a slight tactical error. He told Johnny to cancel the previous message by signalling NO DANGER.

At once the two dolphins flew into frantic, panic-stricken activity. They tore around the pool, leaped a good six feet in the air and charged past Johnny at such speed, and such close quarters, that he was scared that they would accidentally ram him. This performance lasted for several minutes; then Susie stuck her head out of the water and made a very rude noise at the Professor. Not until then did the watchers realize that the dolphins had been having some fun at their expense.

There was still one signal to test; would they take this as joke, or treat it seriously? Professor Kazan waved the HELP! sign, Johnny pressed the button, and went down blowing an impressive stream of bubbles.

Two gray meteors raced through the water toward him. He felt a firm but gentle nudge, pushing him back to the surface. Even had he wished to, he could not have stayed under; the dolphins were holding him with his head above the water—just as they had been known to support

their own companions when they were injured. Whether that HELP! was genuine or not, they were taking no chances.

The Professor was waving for him to return, and he began to swim back to shore. But now the dolphins' own exuberance had infected him; out of sheer high spirits, he dived down to the bottom of the pool, looped-the-loop in the water, and swam on his back, facing up at the surface. He even imitated the animals' own movements, by keeping his legs and flippers together and trying to undulate through the water as they did. Although he made some progress, it was at about a tenth of their speed.

They followed him all the way back, sometimes brushing affectionately against him. As far as Susie and Sputnik were concerned, he knew that he need never press the FRIEND button again.

When he climbed out of the pool, Professor Kazan embraced him like a long-lost son. Even Dr. Keith, to Johnny's embarrassment, tried to clutch him with bony arms and he had to sidestep smartly to avoid him. As soon as they had left the silence zone, the two scientists started chattering like excited schoolboys.

"It's too good to be true," said Dr. Keith. "Why, they were one jump ahead of us most of the time!"

"I noticed that," answered the Professor. "I'm not sure if they're better thinkers than we are, but they're certainly faster ones."

"Can I use that gadget next time, Professor?" asked Mick plaintively.

"Yes," said Professor Kazan at once. "Now we know they'll co-operate with Johnny, we want to see if they'll do so with other people. I picture trained diver-dolphin teams that can open up new frontiers in the sea for research, salvage—oh, a thousand jobs." He suddenly stopped, in the full flight of his enthusiasm. "I've just remembered two words that should have gone into the communicator; we must put them there at once."

"What are they?" asked Dr. Keith.

"PLEASE and THANK YOU," answered the Professor.

TO BE CONCLUDED

X MARKS THE PEDWALK

BY FRITZ LEIBER

This is how it all began — the terrible civil strife that devastates our world!

Based in material in Ch. 7 — "First Clashes of the Wheeled and Footed Sects" — of Vol. 3 of Burger's monumental *History of Traffic*, published by the Foundation for Twenty-Second Century Studies.

The raggedy little old lady with the big shopping bag was in the exact center of the crosswalk when she became aware of the big black car bearing down on her.

Behind the thick bullet-proof glass its seven occupants had a misty look, like men in a diving bell.

She saw there was no longer time to beat the car to either curb. Veering remorselessly, it would catch her in the gutter.

Useless to attempt a feint and double-back. such as any venturesome child executed a dozen times a day. Her reflexes were too slow.

Polite vacuous laughter came from the car's loudspeaker over the engine's mounting roar.

From her fellow pedestrians lining the curbs came a sigh of horror.

The little old lady dipped into her shopping bag and came up with a big blue-black automatic. She held it in both fists, riding the recoils like a rodeo cowboy on a bucking bronco.

Aiming at the base of the windshield, just as a big-game hunter aims at the vulnerable spine of a charging water buffalo over the horny armor of its lowered head, the little old lady squeezed off three shots before the car chewed her down.

From the right-hand curb a young woman in a wheelchair shrieked an obscenity at the car's occupants.

Smythe-de Winter, the driver, wasn't happy. The little old lady's last shot had taken two members of his car pool. Bursting through the laminated glass, the steel-jacketed slug had traversed the neck of Phipps-McHeath and buried itself in

the skull of Horvendile-Harker.

Braking viciously, Smythe-de Winter rammed the car over the right-hand curb. Pedestrians scattered into entries and narrow arcades, among them a youth bounding high on crutches.

But Smythe-de Winter got the girl in the wheelchair.

Then he drove rapidly out of the Slum Ring into the Suburbs, a shred of rattan swinging from the flange of his right fore mudguard for a trophy. Despite the two-for-two casualty list, he felt angry and depressed. The secure, predictable world around him seemed to be crumbling.

While his companions softly keened a dirge to Horvy and Phipps and quietly mopped up their blood, he frowned and shook his head.

"They oughtn't to let old ladies carry magnums," he murmured.

Witherspoon-Hobbs nodded agreement across the front-seat corpse. "They oughtn't to let 'em carry anything. God, how I hate Feet," he muttered, looking down at his shrunken legs. "Wheels forever!" he softly cheered.

The incident had immediate repercussions throughout the city. At the combined wake of the little old lady and the girl in the wheelchair, a fiery-tongued speaker inveighed against the White-Walled Fascists of Suburbia, telling to his hearers, the fabled wonders of old Los Angeles, where pedestrians were sacroscant, even outside crosswalks. He called for a hobnail march across the nearest lawn-bowling alleys and perambulator-traversed golf courses of the motorists.

At the Sunnyside Crematorium, to which the bodies of Phipps and Horvy had been conveyed, an equally impassioned and rather more grammatical orator reminded his listeners of the legendary justice of old Chicago, where pedestrians were forbidden to carry small arms and anyone with one foot off the sidewalk was fair prey. He broadly hinted that a holocaust, phimed if necessary with a few tankfuls of gasoline, was the only cure for the Slums.

Bands of skinny youths came loping at dusk out of the Slum Ring into the innermost sections of the larger doughnut of the Suburbs slashing defenseless tires, shooting expensive watchdogs and scrawling filthy words on the pristine panels of matrons' runabouts which never ventured more than six blocks from home.

Simultaneously squadrons of young suburban motorcycles and scooterites roared through the outermost precincts of the Slum Ring, harrying children off sidewalks, tossing stinkbombs through second-story tenement windows and defacing hovelfronts with sprays of black paint.

Incident—a thrown brick, a cut corner, monster tacks in the portico of the Auto Club—were even reported from the center of the city, traditionally neutral territory.

The Government hurriedly acted, suspending all traffic between the Center and the Suburbs and establishing a 24-hour curfew in the Slum Ring. Government agents moved only by centipede-car and pogo-hopper to underline the point that they

favored neither contending side.

The day of enforced non-movement for Feet and Wheels was spent in furtive vengeful preparations. Behind locked garage doors, machine-guns that fired through the nose ornament were mounted under hoods, illegal scythe blades were welded to oversize hubcaps and the stainless steel edges of flange fenders were honed to razor sharpness.

While nervous National Guardsmen hopped about the deserted sidewalks of the Slum Ring, grim-faced men and women wearing black armbands moved through the webwork of secret tunnels and hidden doors, distributing heavy-caliber small arms and spike-studded paving blocks, piling cobblestones on strategic rooftops and sapping upward from the secret tunnels to create car-traps. Children got ready to soap intersections after dark. The Committee of Pedestrian Safety, sometimes known as Robespierre's Rats, prepared to release its two carefully hoarded anti-tank guns.

At nightfall, under the tireless urging of the Government, representatives of the Pedestrians and the Motorists met on a huge safety island at the boundary of the Slum Ring and the Suburbs.

Underlings began a noisy dispute as to whether Smythe-de Winter had failed to give a courtesy honk before charging, whether the little old lady had opened fire before the car had come within honking distance, how many wheels of Smythe-de's car had been on the sidewalk when he hit the girl in the wheelchair and so on. After a little while the High Pedestrian and the Chief Motorist exchanged cautious winks and drew aside.

The red writhing of a hundred kerosene flares and the mystic yellow pulsing of a thousand firefly lamps mounted on yellow sawhorses ranged around the safety island illumined two tragic, strained faces.

"A word before we get down to business," the Chief Motorist whispered. "What's the current S.Q. of your adults?"

"Forty-one and dropping," the High Pedestrian replied, his eyes fearfully searching from side to side for eavesdroppers. "I can hardly get aides who are halfway *compos mentis*."

"Our own Sanity Quotient is thirty-seven," the Chief Motorist revealed. He shrugged helplessly. "The wheels inside my people's heads are slowing down. I do not think they will be speeded up in my lifetime."

"They say Government's only fifty-two," the other said with a matching shrug.

"Well, I suppose we must scrape out one more compromise," the one suggested hollowly, "though I must confess there are times when I think we're all the figments of a paranoid's dream."

Two hours of concentrated deliberations produced the new Wheel-Foot Articles of Agreement. Among other points, pedestrian handguns were limited to a slightly lower muzzle velocity and to .38 caliber and under, while motorists were required to give three honks at one block distance before charging a pedes-

train in a crosswalk. Two wheels over the curb changed a traffic kill from third-degree manslaughter to petty homicide. Blind pedestrians were permitted to carry hand grenades.

Immediately the Government went to work. The new Wheel-Foot Articles were loudspeakered and posted. Detachments of police and psychiatric social hoppers centipedaled and pogoed through the Slum Ring, seizing outsize weapons and giving tranquilizing jet-injections to the unruly. Teams of hypnotherapists and mechanics scuttled from home to home in the Suburbs and from garage to garage, in-chanting a conformist serenity and stripping illegal armament from cars. On the advice of a rogue psychiatrist, who said it would channel off aggressions, a display of bull-fighting was announced, but this had to be canceled when a strong protest was lodged by the Decency League, which had a large mixed Wheel-Foot membership.

At dawn, curfew was lifted in the Slum Ring and traffic reopened between the Suburbs and the Center. After a few uneasy moments it became apparent that the *status quo* had been restored.

Smythe-de Winter tooled his gleaming black machine along the Ring. A thick steel bolt with a large steel washer on either side neatly filled the hole the little old lady's slug had made in the windshield.

A brick bounced off the roof. Bullets pattered against the side windows.

Smythe-de ran a handkerchief around his neck under his collar and smiled.

A block ahead children were darting into the street, cat-calling and thumbing their noses. Behind one of them limped a fat dog with a spiked collar.

Smythe-de suddenly gunned his motor. He didn't hit any of the children, but he got the dog.

A flashing light on the dash showed him the right front tire was losing pressure. Must have hit the collar as well! He thumbed the matching emergency-air button and the flashing stopped.

He turned toward Witherspoon-Hobbs and said with thoughtful satisfaction, "I like a normal orderly world, where you always have a little success, but not champagne-heady; a little failure, but just enough to brace you."

Witherspoon-Hobbs was squinting at the next crosswalk. Its center was discolored by a brownish stain ribbon-tracked by tires.

"That's where you bagged the little old lady, Smythe-de," he remarked. "I'll say this for her now: she had spirit."

"Yes, that's where I bagged her," Shythe-de agreed flatly. He remembered wistfully the witchlike face growing rapidly larger, he jerking shoulders in black bombazine, the wild white-circled eyes. He suddenly found himself feeling that this was a very dull day.

END

THE LONG REMEMBERED THUNDER

BY KEITH LAUMER

He was as ancient as time — and as strange as his own frightful battle against incredible odds!

I

In his room at the Elsby Commercial Hotel, Tremaine opened his luggage and took out a small tool kit, used a screwdriver to remove the bottom cover plate from the telephone. He inserted a tiny aluminum cylinder, crimped wires and replaced the cover. Then he dialed a long-distance Washington number and waited half a minute for the connection.

"Fred, Tremaine here. Put the buzzer on." A thin hum sounded on the wire as the scrambler went into operation.

"Okay, can you read me all right? I'm set up in Elsby. Grammond's boys are supposed to keep me informed. Meantime, I'm not sitting in this damned room crouched over a dial. I'll be out and around for the rest of the afternoon."

"I want to see results," the thin voice came back over the filtered

hum of the jamming device. "You spent a week with Grammond — I can't wait another. I don't mind telling you certain quarters are pressing me."

"Fred, when will you learn to sit on your news breaks until you've got some answers to go with the questions?"

"I'm an appointive official," Fred said sharply. "But never mind that. This fellow Margrave — General Margrave. Project Officer for the hyperwave program — he's been on my neck day and night. I can't say I blame him. An unauthorized transmitter interfering with a Top Secret project, progress slowing to a halt, and this Bureau —"

"Look, Fred. I was happy in the lab. Headaches, nightmares and all. Hyperwave is my baby, remember? You elected me to be a leg-man: now let me do it my way."

"I felt a technical man might succeed where a trained investigator could be misled. And since it seems to be pinpointed in your home area —"

"You don't have to justify yourself. Just don't hold out on me. I sometimes wonder if I've seen the complete files on this—"

"You've seen all the files! Now I want answers, not questions! I'm warning you, Tremaine. Get that transmitter. I need someone to hang!"

Tremaine left the hotel, walked two blocks west along Commerce Street and turned in at a yellow brick building with the words ELSBY MUNICIPAL POLICE cut in the stone lintel above the door. Inside, a heavy man with a creased face and thick gray hair looked up from behind an ancient Underwood. He studied Tremaine, shifted a toothpick to the opposite corner of his mouth.

"Don't I know you, mister?" he said. His soft voice carried a note of authority.

Tremaine took off his hat. "Sure you do, Jess. It's been a while, though."

The policeman got to his feet. "Jimmy," he said, "Jimmy Tremaine." He came to the counter and put out his hand. "How are you, Jimmy? What brings you back to the boondocks?"

"Let's go somewhere and sit down, Jess."

In a back room Tremaine said, "To everybody but you this is just a visit to the old home town. Between us, there's more."

Jess nodded. "I heard you were with the guv'ment."

"It won't take long to tell; we don't know much yet." Tremaine covered the discovery of the powerful unidentified interference on the high-security hyper-wave band, the discovery that each transmission produced not one but a pattern of "fixes" on the point of origin. He passed a sheet of paper across the table. It showed a set of concentric circles, overlapped by a similar group of rings.

"I think what we're getting is an


Virgil Finlay

echo effect from each of these points of intersection. The rings themselves represent the diffraction pattern —"

"Hold it, Jimmy. To me it just looks like a beer ad. I'll take your word for it."

"The point is this, Jess: we think we've got it narrowed down to this section. I'm not sure of a damn thing, but I think that transmitter's near here. Now, have you got any ideas?"

"That's a tough one, Jimmy. This is where I should come up with the news that Old Man Whatchamacall-it's got an attic full of gear he says is a time machine. Trouble is, folks around here haven't even taken to TV. They figure we should be content with radio, like the Lord intended."

"I didn't expect any easy answers, Jess. But I was hoping maybe you had something. . ."

"Course," said Jess. "there's always Mr. Bram . . ."

"Mr. Bram," repeated Tremaine. "Is he still around? I remember him as a hundred years old when I was kid."

"Still just the same, Jimmy. Comes in town maybe once a week, buys his groceries and hikes back out to his place by the river."

"Well, what about him?"

"Nothing. But he's the town's mystery man. You know that. A little touched in the head."

"There were a lot of funny stories about him, I remember," Tremaine said. "I always liked him. One time he tried to teach me something I've forgotten. Wanted me to come out to his place and he'd teach me. I never did go. We kids used to play in the caves near his place, and sometimes he gave us apples."

"I've never seen any harm in Bram," said Jess. "But you know how this town is about foreigners, especially when they're a mite addled. Bram has blue eyes and blond hair—or did before it turned white—and he talks just like everybody else. From a distance he seems just like an ordinary American. But up close, you feel it. He's foreign, all right. But we never did know where he came from."

"How long's he lived here in Elsby?"

"Beats me, Jimmy. You remember old Aunt Tress, used to know all about ancestors and such as that? She couldn't remember about Mr. Bram. She was kind of senile, I guess. She used to say he'd lived in that same old place out on the Concord road when she was a girl. Well, she died five years ago. . .in her seventies. He still walks in town every Wednesday. . .or he did up till yesterday anyway."

"Oh?" Tremaine stubbed out his cigarette, lit another. "What happened then?"

"You remember Soup Gaskin? He's got a boy, name of Hull. He's Soup all over again."

"I remember Soup," Tremaine said. "He and his bunch used to come in the drug store where I

worked and perch on the stools and kid around with me, and Mr. Hempleman would watch them from over back of the prescription counter and look nervous. They used to raise cain in the other drug store. . ."

"Soup's been in the pen since then. His boy Hull's the same kind. Him and a bunch of his pals went out to Bram's place one night and set it on fire."

"What was the idea of that?"

"Dunno. Just meanness, I reckon. Not much damage done. A car was passing by and called it in. I had the whole caboodle locked up here for six hours. Then the sob sisters went to work: poor little tyke routine, high spirits, you know the line. All of 'em but Hull are back in the streets playin' with matches by now. I'm waiting for the day they'll make jail age."

"Why Bram?" Tremaine persisted. "As far as I know, he never had any dealings to speak of with anybody here in town."

"Oh hoh, you're a little young, Jimmy," Jess chuckled. "You never knew about Mr. Bram — the young Mr. Bram — and Linda Carroll."

Tremaine shook his head.

"Old Miss Carroll. School teacher here for years; guess she was retired by the time you were playing hookey. But her dad had money, and in her day she was a beauty. Too good for the fellers in these parts. I remember her ridin by in a high-wheeled shay, when I was just a nipper. Sitting up proud and tall, with that red hair piled up high. I used to think she was some kind of princess. . ."

"What about her and Bram? A romance?"

Jess rocked his chair back on two legs, looked at the ceiling, frowning. "This would ha' been about nineteen-oh-one. I was no more'n eight years old. Miss Linda was maybe in her twenties — and that made her an old maid, in those times. The word got out she was setting her cap for Bram. He was a good-looking young feller then, over six foot, of course, broad backed, curly yellow hair — and a stranger to boot. Like I said, Linda Carroll wanted nothin to do with the local bucks. There was a big shindy planned. Now, you know Bram was funny about any kind of socializing; never would go any place at night. But this was a Sunday afternoon and someways or other they got Bram down there; and Miss Linda made her play, right there in front of the town, practically. Just before sundown they went off together in that fancy shay. And the next day, she was home again — alone. That finished off her reputation, as far as the biddies in Elsby was concerned. It was ten years 'fore she even landed the teaching job. By that time, she was already old. And nobody was ever fool enough to mention the name Bram in front of her."

Tremaine got to his feet. "I'd appreciate it if you'd keep your ears and eyes open for anything that might build into a lead on this, Jess.

Meantime, I'm just a tourist, seeing the sights."

"What about that gear of yours? Didn't you say you had some kind of detector you were going to set up?"

"I've got an oversized suitcase," Tremaine said. "I'll be setting it up in my room over at the hotel."

"When's this bootleg station supposed to broadcast again?"

"After dark. I'm working on a few ideas. It might be an infinitely repeating logarithmic sequence, based on —"

"Hold it, Jimmy. You're over my head " Jess got to his feet "Let me know if you want anything And by the way —" he winked broadly — "I always did know who busted Soup Gaskin's nose and took out his front teeth."

II

Back in the street, Tremaine headed south toward the Elsby Town Hall, a squat structure of brownish-red brick, crouched under yellow autumn trees at the end of Sheridan Street. Tremaine went up the steps and past heavy double doors Ten yards along the dim corridor. a hand-lettered cardboard sign over a black-varnished door said "MUNICIPAL OFFICE OF RECORD" Tremaine opened the door and went in.

A thin man with garters above the elbow looked over his shoulder at Tremaine.

"We're closed." he said.

"I won't be a minute," Tremaine said. "Just want to check on when the Bram property changed hands last."

The man turned to Tremaine, pushing a drawer shut with his hip. "Bram? He dead?"

"Nothing like that. I just want to know when he bought the place."

The man came over to the counter, eyeing Tremaine. "He ain't going to sell. mister, if that's what you want to know."

"I want to know when he bought."

The man hesitated, closed his jaw hard "Come back tomorrow," he said

Tremaine put a hand on the counter. looked thoughtful "I was hoping to save a trip." He lifted his hand and scratched the side of his jaw A folded bill opened on the counter. The thin man's eyes darted toward it. His hand eased out, covered the bill. He grinned quickly.

"See what I can do," he said.

It was ten minutes before he beckoned Tremaine over to the table where a two-foot-square book lay open. An untrimmed fingernail indicated a line written in faded ink:

"May 19. Acreage sold, One Dollar and other G&V consid. NW Quarter Section 24, Township Elsby. Bram. (see Vol. 9 & cet.)"

"Translated, what does that mean?" said Tremaine.

"That's the ledger for 1901; means Bram bought a quarter section on the nineteenth of May. You want me to look up the deed?"

"No, thanks," Tremaine said.

"That's all I needed." He turned back to the door.

"What's up, mister?" the clerk called after him. "Bram in some kind of trouble?"

"No. No trouble?"

The man was looking at the book with pursed lips. "Nineteen-oh-one," he said. "I never thought of it before, but you know, old Bram must be dern near to ninety years old. Spry for that age."

"I guess you're right."

The clerk looked sideways at Tremaine. "Lots of funny stories about old Bram. Useta say his place was haunted. You know; funny noises and lights. And they used to say there was money buried out at his place."

"I've heard those stories. Just superstition, wouldn't you say?"

"Maybe so." The clerk leaned on the counter, assumed a knowing look. "There's one story that's not superstition. . ."

Tremaine waited.

"You—uh—paying anything for information?"

"Now why would I do that?" Tremaine reached for the door knob.

The clerk shrugged. "Thought I'd ask. Anyway—I can swear to this. Nobody in this town's ever seen Bram between sundown and sunup."

Untrimmed sumacs threw late-afternoon shadows on the discolored stucco facade of the Elsby Public Library. Inside, Tremaine followed a paper-dry woman of indeterminate age to a rack of yellowed newsprint.

"You'll find back to nineteen-forty here," the librarian said. "The older are there in the shelves."

"I want nineteen-oh-one, if they go back that far."

The woman darted a suspicious look at Tremaine. "You have to handle these old papers carefully."

"I'll be extremely careful." The woman sniffed, opened a drawer, leafed through it, muttering.

"What date was it you wanted?"

"Nineteen-oh-one; the week of May nineteenth."

The librarian pulled out a folded paper, placed it on the table. adjusted her glasses, squinted at the front page. "That's it," she said. "These papers keep pretty well, provided they're stored in the dark. But they're still flimsy, mind you."

"I'll remember." The woman stood by as Tremaine looked over the front page. The lead article concerned the opening of the Pan-American Exposition at Buffalo. Vice-President Roosevelt had made a speech. Tremaine leafed over, reading slowly.

On page four, under a column headed *County Notes* he saw the name Bram:

> Mr. Bram has purchased a quarter section of fine grazing land, north of town. together with a sturdy house, from J. P. Spivey of Elsby. Mr. Bram will occupy the home and will continue to graze a few head of stock Mr. Bram, who is a

newcomer to the county, has been a resident of Mrs. Stoate's Guest Home in Elsby for the past months.

"May I see some earlier issues; from about the first of the year?"

The librarian produced the papers. Tremaine turned the pages, read the heads, skimmed an article here and there. The librarian went back to her desk. An hour later, in the issue for July 7, 1900, an item caught his eye:

A Severe Thunderstorm Citizens of Elsby and the country were much alarmed by a violent cloudburst, accompanied by lightning and thunder, during the night of the fifth. A fire set in the pine woods north of Spivey's farm destroyed a considerable amount of timber and threatened the house before burning itself out along the river.

The librarian was at Tremaine's side. "I have to close the library now. You'll have to come back tomorrow."

Outside, the sky was sallow in the west; lights were coming on in windows along the side streets. Tremaine turned up his collar against a cold wind that had risen, started along the street toward the hotel.

A block away a black late-model sedan rounded a corner with a faint squeal of tires and gunned past him, a heavy antenna mounted forward of the left rear tail fin whipping in the slipstream. Tremaine stopped short, stared after the car.

"Damn!" he said aloud. An elderly man veered, eyeing him sharply. Tremaine set off at a run, covered the two blocks to the hotel, yanked open the door to his car, slid into the seat, made a U-turn, and headed north after the police car.

Two miles into the dark hills north of the Elsby city limits, Tremaine rounded a curve. The police car was parked on the shoulder beside the highway just ahead. He pulled off the road ahead of it and walked back. The door opened. A tall figure stepped out.

"What's your problem, mister?" a harsh voice drawled.

"What's the matter? Run out of signal?"

"What's it to you, mister?"

"Are you boys in touch with Grammond on the car set?"

"We could be."

"Mind if I have a word with him? My name's Tremaine."

"Oh," said the cop, "you're the big shot from Washington." He shifted chewing tobacco to the other side of his jaw. "Sure, you can talk to him." He turned and spoke to the other cop, who muttered into the mike before handing it to Tremaine.

The heavy voice of the State Police chief crackled. "What's your beef, Tremaine?"

"I thought you were going to keep your men away from Elsby until I gave the word, Grammond."

"That was before I knew your Washington stuffed shirts were holding out on me."

"It's nothing we can go to court with, Grammond. And the job you were doing might have been influenced if I'd told you about the Elsby angle."

Grammond cursed. "I could have put my men in the town and taken it apart brick by brick in the time—"

"That's just what I don't want. If our bird sees cops cruising, he'll go underground."

"You've got it all figured, I see. I'm just the dumb hick you boys use for the spade work, that it?"

"Pull your lip back in. You've given me the confirmation I needed."

"Confirmation, hell! All I know is that somebody somewhere is punching out a signal. For all I know, it's forty midgets on bicycles, pedalling all over the damned state. I've got fixes in every county—"

"The smallest hyperwave transmitter Uncle Sam knows how to build weighs three tons," said Tremaine. "Bicycles are out."

Grammond snorted. "Okay, Tremaine," he said. "You're the boy with all the answers. But if you get in trouble, don't call me; call Washington."

Back in his room, Tremaine put through a call.

"It looks like Grammond's not willing to be left out in the cold, Fred. Tell him if he queers this —"

"I don't know but what he might have something," the voice came back over the filtered hum. "Suppose he smokes them out—"

"Don't go dumb on me, Fred. We're not dealing with West Virginia moonshiners."

"Don't tell me my job, Tremaine!" the voice snapped. "And don't try out your famous temper on me. I'm still in charge of this investigation."

"Sure. Just don't get stuck in some senator's hip pocket." Tremaine hung up the telephone, went to the dresser and poured two fingers of Scotch into a water glass. He tossed it down, then pulled on his coat and left the hotel.

He walked south two blocks, turned left down a twilit side street. He walked slowly, looking at the weathered frame houses. Number 89 was a once-stately three-storied mansion overgrown with untrimmed vines, its windows squares of sad yellow light. He pushed through the gate in the ancient picket fence, mounted the porch steps and pushed the button beside the door, a dark panel of cracked varnish. It was a long minute before the door opened. A tall woman with white hair and a fine-boned face looked at him coolly.

"Miss Carroll," Tremaine said. "You won't remember me, but I —"

"There is nothing whatever wrong with my faculties, James," Miss Carroll said calmly. Her voice was still resonant, a deep contralto. Only a faint quaver reflected her age — close to eighty, Tremaine thought, startled.

"I'm flattered you remember me, Miss Carroll," he said.

"Come in." She led the way to a pleasant parlor set out with the fur-

nishings of another era. She motioned Tremaine to a seat and took a straight chair across the room from him.

"You look very well, James," she said, nodding. "I'm pleased to see that you've amounted to something."

"Just another bureaucrat, I'm afraid."

"You were wise to leave Elsby. There is no future here for a young man."

"I often wondered why you didn't leave, Miss Carroll. I thought, even as a boy, that you were a woman of great ability."

"Why did you come today, James?" asked Miss Carroll.

"I. . " Tremaine started. He looked at the old lady. "I want some information. This is an important matter. May I rely on your discretion?"

"Of course."

"How long has Mr. Bram lived in Elsby?"

Miss Carroll looked at him for a long moment. "Will what I tell you be used against him?"

"There'll be nothing done against him Miss Carroll. . unless it needs to be in the national interest."

"I'm not at all sure I know what the term 'national interest' means, James. I distrust these glib phrases."

"I always liked Mr Bram," said Tremaine. "I'm not out to hurt him."

"Mr Bram came here when I was a young woman. I'm not certain of the year."

"What does he do for a living?"

"I have no idea."

"Why did a healthy young fellow like Bram settle out in that isolated piece of country? What's his story?"

"I'm. . .not sure that anyone truly knows Bram's story."

"You called him 'Bram', Miss Carroll. Is that his first name. . .or his last?"

"That is his only name. Just. . . Bram."

"You knew him well once, Miss Carroll. Is there anything —"

A tear rolled down Miss Carroll's faded cheek. She wiped it away impatiently.

"I'm an unfulfilled old maid, James," she said. "You must forgive me."

Tremaine stood up. "I'm sorry. Really sorry. I didn't mean to grill you, Miss Carroll. You've been very kind. I had no right. . ."

Miss Carroll shook her head. "I knew you as a boy, James. I have complete confidence in you. If anything I can tell you about Bram will be helpful to you, it is my duty to oblige you; and it may help him." She paused. Tremaine waited.

"Many years ago I was courted by Bram. One day he asked me to go with him to his house. On the way he told me a terrible and pathetic tale. He said that each night he fought a battle with evil beings, alone, in a cave beneath his house."

Miss Carroll drew a deep breath and went on. "I was torn between pity and horror. I begged him to take me back. He refused." Miss Carroll twisted her fingers together,

her eyes fixed on the long past. "When we reached the house, he ran to the kitchen. He lit a lamp and threw open a concealed panel. There were stairs. He went down... and left me there alone.

"I waited all that night in the carriage. At dawn he emerged. He tried to speak to me but I would not listen.

"He took a locket from his neck and put it into my hand. He told me to keep it and, if ever I should need him, to press it between my fingers in a secret way . . . and he would come. I told him that until he would consent to see a doctor, I did not wish him to call. He drove me home. He never called again."

"This locket," said Tremaine, "do you still have it?"

Miss Carroll hesitated, then put her hand to her throat, lifted a silver disc on a fine golden chain. "You see what a foolish old woman I am, James."

"May I see it?"

She handed the locket to him. It was heavy, smooth. "I'd like to examine this more closely," he said. "May I take it with me?"

Miss Carroll nodded.

"There is one other thing," she said, "perhaps quite meaningless..."

"I'd be grateful for any lead."

"Bram fears the thunder."

III

As Tremaine walked slowly toward the lighted main street of Elsby a car pulled to a stop beside him. Jess leaned out, peered at Tremaine and asked:

"Any luck, Jimmy?"

Tremaine shook his head. "I'm getting nowhere fast. The Bram idea's a dud, I'm afraid."

"Funny thing about Bram. You know, he hasn't showed up yet. I'm getting a little worried. Want to run out there with me and take a look around?"

"Sure. Just so I'm back by full dark."

As they pulled away from the curb Jess said, "Jimmy, what's this about State Police nosing around here? I thought you were playing a lone hand from what you were saying to me."

"I thought so too, Jess. But it looks like Grammond's a jump ahead of me. He smells headlines in this; he doesn't want to be left out."

"Well, the State cops could be mighty handy to have around. I'm wondering why you don't want 'em in. If there's some kind of spy ring working —"

"We're up against an unknown quantity. I don't know what's behind this and neither does anybody else. Maybe it's a ring of Bolsheviks ...and maybe it's something bigger. I have the feeling we've made enough mistakes in the last few years; I don't want to see this botched."

The last pink light of sunset was fading from the clouds to the west as Jess swung the car through the open gate, pulled up under the old trees before the square-built house.

The windows were dark. The two men got out, circled the house once, then mounted the steps and rapped on the door. There was a black patch of charred flooring under the window, and the paint on the wall above it was bubbled. Somewhere a cricket set up a strident chirrup, suddenly cut off. Jess leaned down, picked up an empty shotgun shell. He looked at Tremaine. "This don't look good," he said. "You suppose those fool boys. . .?"

He tried the door. It opened. A broken hasp dangled. He turned to Tremaine. "Maybe this is more than kid stuff," he said. "You carry a gun?"

"In the car."

"Better get it."

Tremaine went to the car, dropped the pistol in his coat pocket, rejoined Jess inside the house. It was silent, deserted. In the kitchen Jess flicked the beam of his flashlight around the room. An empty plate lay on the oilcloth-covered table.

"This place is empty," he said. "Anybody'd think he'd been gone a week."

"Not a very cozy —" Tremaine broke off. A thin yelp sounded in the distance.

"I'm getting jumpy," said Jess. "Dern hounddog, I guess."

A low growl seemed to rumble distantly. "What the devil's that?" Tremaine said.

Jess shone the light on the floor. "Look here," be said. The ring of light showed a spatter of dark droplets all across the plank floor.

"That's blood, Jess. . ." Tremaine scanned the floor. It was of broad slabs, closely laid, scrubbed clean but for the dark stains.

"Maybe he cleaned a chicken. This is the kitchen."

"It's a trail." Tremaine followed the line of drops across the floor. It ended suddenly near the wall.

"What do you make of it, Jimmy?

A wail sounded, a thin forlorn cry, trailing off into silence. Jess stared at Tremaine. "I'm too damned old to start believing in spooks," he said. "You suppose those damn-fool boys are hiding here, playing tricks?"

"I think," Tremaine said, "that we'd better go ask Hull Gaskin a few questions."

At the station Jess led Tremaine to a cell where a lanky teenage boy lounged on a steel-framed cot, blinking up at the visitor under a mop of greased hair.

"Hull, this is Mr. Tremaine," said Jess. He took out a heavy key, swung the cell door open. "He wants to talk to you."

"I ain't done nothin," Hull said sullenly. "There ain't nothin wrong with burnin out a Commie, is there?"

"Bram's a Commie, is he?" Tremaine said softly. "How'd you find that out, Hull?"

"He's a foreigner, ain't he?" the youth shot back. "Besides, we heard. . ."

"What did you hear?"

"They're lookin for the spies."

"Who's looking for spies?"

"Cops."

"Who says so?"

The boy looked directly at Tremaine for an instant, flicked his eyes to the corner of the cell. "Cops was talkin about 'em," he said.

"Spill it, Hull," the policeman said. "Mr. Tremaine hasn't got all night."

"They parked out east of town, on 302, back of the woodlot. They called me over and asked me a bunch of questions. Said I could help 'em get them spies. Wanted to know all about any funny-actin people around here."

"And you mentioned Bram?"

The boy darted another look at Tremaine. "They said they figured the spies was out north of town. Well, Bram's a foreigner, and he's out that way, ain't he?"

"Anything else?"

The boy looked at his feet.

"What did you shoot at, Hull?" Tremaine said. The boy looked at him sullenly.

"You know anything about the blood on the kitchen floor?"

"I don't know what you're talkin about," Hull said. "We was out squirrel-huntin."

"Hull, is Mr. Bram dead?"

"What you mean?" Hull blurted. "He was —"

"He was what?"

"Nothin."

"The Chief won't like it if you hold out on him, Hull," Tremaine said. "He's bound to find out."

Jess looked at the boy. "Hull's a pretty dumb boy," he said. "But he's not that dumb. Let's have it, Hull."

The boy licked his lips. "I had Pa's 30-30, and Bovey Lay had a twelve-gauge . . . "

"What time was this?"

"Just after sunset."

"About seven-thirty, that'd be," said Jess. "That was half an hour before the fire was spotted."

"I didn't do no shootin. It was Bovey. Old Bram jumped out at him, and he just fired off the hip. But he didn't kill him. He seen him run off. . ."

"You were on the porch when this happened. Which way did Bram go?"

"He. . .run inside."

"So then you set fire to the place. Whose bright idea was that?"

Hull sat silent. After a moment Tremaine and Jess left the cell.

"He must have gotten clear, Jimmy," said Jess. "Maybe he got scared and left town."

"Bram doesn't strike me as the kind to panic." Tremaine looked at his watch. "I've got to get on my way, Jess. I'll check with you in the morning."

Tremaine crossed the street to the Paradise Bar and Grill, pushed into the jukebox-lit interior, took a stool and ordered a Scotch and water. He sipped the drink, then sat staring into the dark reflection in the glass. The idea of a careful reconnoitre of the Elsby area was gone, now, with police swarming everywhere. It was too bad about Bram. It would be interesting to know where the old man was. .and

if he was still alive. He'd always seemed normal enough in the old days: a big solid-looking man, middle-aged, always pleasant enough, though he didn't say much. He'd tried hard, that time, to interest Tremaine in learning whatever it was. . .

Tremaine put a hand in his jacket pocket, took out Miss Carroll's locket. It was smooth, the size and shape of a wrist-watch chassis. He was fingering it meditatively when a rough hand slammed against his shoulder, half knocking him from the stool. Tremaine caught his balance, turned, looked into the scarred face of a heavy-shouldered man in a leather jacket.

"I heard you was back in town, Tremaine," the man said.

The bartender moved up. "Looky here, Gaskin, I don't want no trouble —"

"Shove it!" Gaskin squinted at Tremaine, his upper lip curled back to expose the gap in his teeth. "You tryin to make more trouble for my boy, I hear. Been over to the jail, stickin your nose in."

Tremaine dropped the locket in his pocket and stood up. Gaskin hitched up his pants, glanced around the room. Half a dozen early drinkers stared, wide-eyed. Gaskin squinted at Tremaine. He smelled of unwashed flannel.

"Sicked the cops onto him. The boy was out with his friends, havin a little fun. Now there he sets in jail."

Tremaine moved aside from the stool, started past the man. Soup Gaskin grabbed his arm.

"Not so fast! I figger you owe me damages. I —"

"Damage is what you'll get," said Tremaine. He slammed a stiff left to Gaskin's ribs, drove a hard right to the jaw. Gaskin jack-knifed backwards, tripped over a bar stool, fell on his back. He rolled over, got to hands and knees, shook his head.

"Git up, Soup!" someone called. "Hot dog!" offered another.

"I'm calling the police!" the bartender yelled.

"Never mind," a voice said from the door. A blue-jacketed State Trooper strolled into the room, fingers hooked into his pistol belt, the steel caps on his boot heels clicking with each step. He faced Tremaine, feet apart.

"Looks like you're disturbin the peace, Mr. Tremaine," he said.

"You wouldn't know who put him up to it, would you?" Tremaine said.

"That's a dirty allegation," the cop grinned. "I'll have to get off a hot letter to my congressman."

Gaskin got to his feet, wiped a smear of blood across his cheek, then lunged past the cop and swung a wild right. Tremaine stepped aside, landed a solid punch on Gaskin's ear. The cop stepped back against the bar. Soup whirled, slammed out with lefts and rights. Tremaine lashed back with a straight left; Gaskin slammed against the bar, rebounded, threw a knockout right. . .and Tremaine ducked, landed a right uppercut that sent Gaskin reeling back,

bowled over a table, sent glasses flying. Tremaine stood over him.

"On your feet, jailbird," he said. "A workout is exactly what I needed."

"Okay, you've had your fun," the State cop said. "I'm taking you in, Tremaine."

Tremaine looked at him. "Sorry, copper," he said. "I don't have time right now." The cop looked startled, reached for his revolver.

"What's going on here, Jimmy?" Jess stood in the door, a huge .44 in his hand. He turned his eyes on the trooper.

"You're a little out of your jurisdiction," he said. "I think you better move on 'fore somebody steals your bicycle."

The cop eyed Jess for a long moment, then holstered his pistol and stalked out of the bar. Jess tucked his revolver into his belt, looked at Gaskin sitting on the floor, dabbing at his bleeding mouth. "What got into you, Soup?"

"I think the State boys put him up to it," Tremaine said. "They're looking for an excuse to take me out of the picture."

Jess motioned to Gaskin. "Get up, Soup. I'm lockin you up alongside that boy of yours."

Outside, Jess said, "You got some bad enemies there, Jimmy. That's a tough break. You ought to hold onto your temper with those boys. I think maybe you ought to think about getting over the state line. I can run you to the bus station, and send your car along. . ."

"I can't leave now, Jess. I haven't even started."

IV

In his room, Tremaine doctored the cut on his jaw, then opened his trunk, checked over the detector gear. The telephone rang.

"Tremaine? I've been on the telephone with Grammond. Are you out of your mind? I'm —"

"Fred," Tremaine cut in, "I thought you were going to get those state cops off my neck."

"Listen to me, Tremaine. You're called off this job as of now. Don't touch anything! You'd better stay right there in that room. In fact, that's an order!"

"Don't pick now to come apart at the seams, Fred," Tremaine snapped.

"I've ordered you off! That's all!" The phone clicked and the dial tone sounded. Tremaine dropped the receiver in its cradle, then walked to the window absently, his hand in his pocket.

He felt broken pieces and pulled out Miss Carroll's locket. It was smashed, split down the center. It must have gotten it in the tussle with Soup, Tremaine thought. It looked —

He squinted at the shattered ornament. A maze of fine wires was exposed, tiny condensers, bits of glass.

In the street below, tires screeched. Tremaine looked down. A black car was at the curb, doors sprung. Four uniformed men jumped out,

headed for the door. Tremaine whirled to the phone. The desk clerk came on.

"Get me Jess — fast!"

The police chief answered.

"Jess, the word's out I'm poison. A carful of State law is at the front door. I'm going out the back. Get in their way all you can." Tremaine dropped the phone, grabbed up the suitcase and let himself out into the hall. The back stairs were dark. He stumbled, cursed, made it to the service entry Outside, the alley was deserted

He went to the corner, crossed the street, thrust the suitcase into the back seat of his car and slid into the driver's seat. He started up and eased away from the curb. He glanced in the mirror. There was no alarm

It was a four-block drive to Miss Carroll's house. The housekeeper let Tremaine in.

"Oh, yes, Miss Carroll is still up," she said "She never retires until nine. I'll tell her you're here, Mr. Tremaine."

Tremaine paced the room. On his third circuit Miss Carroll came in.

"I wouldn't have bothered you if it wasn't important," Termaine said. "I can't explain it all now. You said once you had confidence in me. Will you come with me now? It concerns Bram. .and maybe a lot more than just Bram."

Miss Carroll looked at him steadily. "I'll get my wrap."

On the highway Tremaine said, "Miss Carroll, we're headed for Bram's house. I take it you've heard of what happened out there?"

"No, James. I haven't stirred out of the house. What is it?"

"A gang of teen-age toughs went out last night. They had guns. One of them took a shot at Bram. And Bram's disappeared. But I don't think he's dead."

Miss Carroll gasped. "Why? Why did they do it?"

"I don't think they know themselves."

"You say. . .you believe he still lives. . ."

"He must be alive. It dawned on me a little while ago. . .a little late, I'll admit. The locket he gave you. Did you ever try it?"

"Try it? Why. . .no. I don't believe in magic, James."

"Not magic. Electronics. Years ago Bram talked to me about radio. He wanted to teach me. Now I'm here looking for a transmitter. That transmitter was busy last night. I think Bram was operating it."

There was a long silence.

"James," Miss Carroll said at last, "I don't understand."

"Neither do I, Miss Carroll. I'm still working on finding the pieces. But let me ask you: that night that Bram brought you out to his place. You say he ran to the kitchen and opened a trapdoor in the floor —"

"Did I say floor? That was an error: the panel was in the wall."

"I guess I jumped to the conclusion. Which wall?"

"He crossed the room. There was a table, with a candlestick. He went around it and pressed his hand against the wall, beside the woodbox. The panel slid aside. It was very dark within. He ducked his head, because the opening was not large, and stepped inside. . ."

"That would be the east wall... to the left of the back door?"

"Yes."

"Now, Miss Carroll, can you remember exactly what Bram said to you that night? Something about fighting something, wasn't it?"

"I've tried for sixty years to put it out of my mind, James. But I remember every word, I think." She was silent for a moment.

"I was beside him on the buggy seat. It was a warm evening, late in spring. I had told him that I loved him, and. . .he had responded. He said that he would have spoken long before, but that he had not dared. Now there was that which I must know.

"His life was not his own, he said. He was not. . .native to this world. He was an agent of a mighty power, and he had trailed a band of criminals. . ." She broke off. "I could not truly understand that part, James. I fear it was too incoherent. He raved of evil beings who lurked in the shadows of a cave. It was his duty to wage each night an unceasing battle with occult forces."

"What kind of battle? Were these ghosts, or demons, or what?"

"I don't know. Evil powers which would be unloosed on the world, unless he met them at the portal as the darkness fell and opposed them."

"Why didn't he get help?"

"Only he could stand against them. I knew little of abnormal psychology, but I understood the classic evidence of paranoia. I shrank from him. He sat, leaning forward, his eyes intent. I wept and begged him to take me back. He turned his face to me, and I saw the pain and anguish in his eyes. I loved him. . .and feared him. And he would not turn back. Night was falling, and the enemy awaited him."

"Then, when you got to the house. . .?"

"He had whipped up the horses, and I remember how I clung to the top braces, weeping. Then we were at the house. Without a word he jumped down and ran to the door. I followed. He lit a lamp and turned to me. From somewhere there was a wailing call, like an injured animal. He shouted something — an unintelligible cry — and ran toward the back of the house. I took up the lamp and followed. In the kitchen he went to the wall, pressed against it. The panel opened. He looked at me His face was white.

" 'In the name of the High God, Linda Carroll, I entreat you. . .'

"I screamed. And he hardened his face, and went down. . .and I screamed and screamed again. . ." Miss Carroll closed her eyes, drew a shuddering breath.

"I'm sorry to have put you through this, Miss Carroll." Tre-

maine said. "But I had to know."

Faintly in the distance a siren sounded. In the mirror, headlights twinkled half a mile behind. Tremaine stepped on the gas. The powerful car leaped ahead.

"Are you expecting trouble on the road, James?"

"The State police are unhappy with me, Miss Carroll. And I imagine they're not too pleased with Jess. Now they're out for blood. But I think I can outrun them."

"James." Miss Carroll said, sitting up and looking behind. "If those are police officers, shouldn't you stop?"

"I can't, Miss Carroll. I don't have time for them now. If my idea means anything, we've got to get there fast. . ."

Bram's house loomed gaunt and dark as the car whirled through the gate, ground to a stop before the porch. Tremaine jumped out, went around the car and helped Miss Carroll out. He was surprised at the firmness of her step. For a moment, in the fading light of dusk, he glimpsed her profile. *How beautiful she must have been...*

He reached into the glove compartment for a flashlight.

"We haven't got a second to waste." he said. "That other car's not more than a minute behind us." He reached into the back of the car, hauled out the heavy suitcase. "I hope you remember how Bram worked that panel."

On the porch Tremaine's flashlight illuminated the broken hasp. Inside, he led the way along a dark hall, pushed into the kitchen.

"It was there," Miss Carroll said, pointing. Outside, an engine sounded on the highway, slowing, turning in. Headlights pushed a square of cold light across the kitchen wall. Tremaine jumped to the spot Miss Carroll had indicated, put the suitcase down, felt over the wall.

"Give me the light, James," Miss Carroll said calmly. "Press there." She put the spot on the wall. Tremaine leaned against it. Nothing happened Outside, there was the thump of car doors; a muffled voice barked orders.

"Are you sure. .?"

"Yes. Try again, James."

Tremaine threw himself against the wall, slapped at it, searching for a hidden latch.

"A bit higher; Bram was a tall man. The panel opened below..."

Tremaine reached higher, pounded, pushed up, sideways —

With a click a three by four foot section of wall rolled silently aside. Tremaine saw greased metal slides and, beyond. steps leading down.

"They are on the porch now, James," said Miss Carroll.

"The light!" Tremaine reached for it, threw a leg over the sill. He reached back, pulled the suitcase after him. "Tell them I kidnapped you, Miss Carroll. And thanks."

Miss Carroll held out her hand. "Help me, James. I hung back once before. I'll not repeat my folly."

Tremaine hesitated for an instant, then reached out. handed Miss Car-

roll in. Footsteps sounded in the hall. The flashlight showed Tremaine a black pushbutton bolted to a two by four stud. He pressed it. The panel slid back in place.

Tremaine flashed the light on the stairs.

"Okay, Miss Carroll," he said softly. "Let's go down."

There were fifteen steps, and at the bottom, a corridor, with curved walls of black glass, and a floor of rough boards. It went straight for twenty feet and ended at an old-fashioned five-panel wooden door. Tremaine tried the brass knob. The door opened on a room shaped from a natural cave, with water-worn walls of yellow stone, a low uneven ceiling, and a packed-earth floor. On a squat tripod in the center of the chamber rested an apparatus of black metal and glass, vaguely gunlike, aimed at the blank wall. Beside it, in an ancient wooden rocker, a man lay slumped, his shirt blood-caked, a black puddle on the floor beneath him.

"Bram!" Miss Carroll gasped. She went to him, took his hand, staring into his face.

"Is he dead?" Tremaine said tightly.

"His hands are cold. . .but there is a pulse."

A kerosene lantern stood by the door. Tremaine lit it, brought it to the chair. He took out a pocket knife, cut the coat and shirt back from Bram's wound. A shotgun blast had struck him in the side; there was a lacerated area as big as Tremaine's hand.

"It's stopped bleeding," he said. "It was just a graze at close range, I'd say." He explored further. "It got his arm too, but not as deep. And I think there are a couple of ribs broken. If he hasn't lost too much blood. . ." Tremaine pulled off his coat, spread it on the floor.

"Let's lay him out here and try to bring him around."

Lying on his back on the floor, Bram looked bigger than his six-foot-four, younger than his near-century, Tremaine thought. Miss Carroll knelt at the old man's side, chafing his hands, murmuring to him.

Abruptly a thin cry cut the air.

Tremaine whirled, startled. Miss Carroll stared, eyes wide. A low rumble sounded, swelled louder, broke into a screech, cut off.

"Those are the sounds I heard that night," Miss Carroll breathed. "I thought afterwards I had imagined them, but I remember. . . James, what does it mean?"

"Maybe it means Bram wasn't as crazy as you thought," Tremaine said.

Miss Carroll gasped sharply. "James! Look at the wall —"

Tremaine turned. Vague shadows moved across the stone, flickering, wavering.

"What the devil. . .!"

Bram moaned, stirred. Tremaine went to him. "Bram!" he said. "Wake up!"

Bram's eyes opened. For a mo-

ment he looked dazedly at Tremaine, then at Miss Carroll. Awkwardly he pushed himself to a sitting position.

"Bram you must lie down," Miss Carroll said.

"Linda Carroll," Bram said. His voice was deep, husky.

"Bram, you're hurt..."

A mewling wail started up. Bram went rigid. "What hour is this?" he grated.

"The sun has just gone down; it's after seven —"

Bram tried to get to his feet. "Help me up," he ordered. "Curse the weakness..."

Tremaine got a hand under the old man's arm. "Careful, Bram," he said. "Don't start your wound bleeding again."

"To the Repellor," Bram muttered. Tremaine guided him to the rocking chair, eased him down. Bram seized the two black pistol-grips, squeezed them.

"You, young man," Bram said. "Take the circlet there; place it about my neck."

The flat-metal ring hung from a wire loop. Tremaine fitted it over Bram's head. It settled snugly over his shoulders, a flange at the back against his neck.

"Bram," Tremaine said. "What's this all about?"

"Watch the wall there. My sight grows dim Tell me what you see."

"It looks like shadows: but what's casting them?"

"Can you discern details?"

"No It's like somebody waggling their fingers in front of a slide projector."

"The radiation from the star is yet too harsh," Bram muttered. "But now the node draws close. May the High Gods guide my hand!"

A howl rang out, a raw blast of sound Bram tensed. "What do you see?" he demanded.

"The outlines are sharper. There seem to be other shapes behind the moving ones. It's like looking through a steamy window. ." Beyond the misty surface Tremaine seemed to see a high narrow chamber, bathed in white light. In the foreground creatures like shadowy caricatures of men paced to and fro. "They're like something stamped out of alligator hide," Tremaine whispered. "When they turn and I see them edge-on, they're thin..."

"An effect of dimensional attenuation. They strive now to match matrices with this plane. If they succeed, this earth you know will lie at their feet."

"What are they? Where are they? That's solid rock —"

"What you see is the Niss Command Center. It lies in another world than this, but here is the multihedron of intersection. They bring their harmonic generators to bear here in the hope of establishing an aperture of focus."

"I don't understand half of what you're saying, Bram. And the rest I don't believe. But with this staring me in the face, I'll have to act as though I did."

Suddenly the wall cleared. Like a surface of moulded glass the stone threw back ghostly highlights. Beyond it, the Niss technicians, seen now in sharp detail, worked busily, silently, their faces like masks of ridged red-brown leather. Directly opposite Bram's Repellor, an apparatus like an immense camera with a foot-wide silvered lens stood aimed, a black-clad Niss perched in a saddle atop it. The white light flooded the cave, threw black shadows across the floor. Bram hunched over the Repellor, face tensed in strain. A glow built in the air around the Niss machine. The alien technicians stood now, staring with tiny bright-red eyes. Long seconds passed. The black-clad Niss gestured suddenly. Another turned to a red-marked knife-switch, pulled. As suddenly as it had cleared, the wall went milky, then dulled to opacity. Bram slumped back, eyes shut, breathing hoarsely.

"Near were they then," he muttered, "I grow weak..."

"Let me take over," Tremaine said. "Tell me how."

"How can I tell you? You will not understand."

"Maybe I'll understand enough to get us through the night."

Bram seemed to gather himself. "Very well. This must you know...

"I am an agent in the service of the Great World. For centuries we have waged war against the Niss, evil beings who loot the continua. They established an Aperture here, on your Earth. We detected it, and found that a Portal could be set up here briefly. I was dispatched with a crew to counter their move —"

"You're talking gibberish," Tremaine said. "I'll pass the Great World and the continua. . .but what's an Aperture?"

"A point of material contact between the Niss world and this plane of space-time. Through it they can pump this rich planet dry of oxygen, killing it — then emerge to feed on the corpse."

"What's a Portal?"

"The Great World lies in a different harmonic series than do Earth and the Niss World. Only at vast intervals can we set up a Portal of temporary identity as the cycles mesh. We monitor the Niss emanations, and forestall them when we can, now in this plane, now in that."

"I see: denial to the enemy."

"But we were late. Already the multihedron was far advanced A blinding squall lashed outside the river cave where the Niss had focused the Aperture, and the thunder rolled as the ionization effect was propagated in the atmosphere. I threw my force against the Niss Aperture, but could not destroy it . . .but neither could they force their entry."

"And this was sixty years ago? And they're still at it?"

"You must throw off the illusion of time! To the Niss only a few days have passed. But here — where I spend only minutes from each night in the engagement, as the

patterns coincide — it has been long years."

"Why don't you bring in help? Why do you have to work alone?"

"The power required to hold the Portal in focus against the stresses of space-time is tremendous. Even then the cycle is brief. It gave us first a fleeting contact of a few seconds; it was through that that we detected the Niss activity here. The next contact was four days later, and lasted twenty-four minutes — long enough to set up the Repellor I fought them then. .and saw that victory was in doubt. Still, it was a fair world; I could not let it go without a struggle. A third identity was possible twenty days later; I elected to remain here until then, attempt to repel the Niss, then return home at the next contact. The Portal closed, and my crew and I settled down to the engagement.

"The next night showed us in full the hopelessness of the contest. By day, we emerged from where the Niss had focussed the Aperture, and explored this land, and came to love its small warm sun. its strange blue sky, its mantle of green . . and the small humble grass-blades. To us of an ancient world it seemed a paradise of young life. And then I ventured into the town. . .and there I saw such a maiden as the Cosmos has forgotten, such was her beauty. . .

"The twenty days passed. The Niss held their foothold — yet I had kept them back

"The Portal reopened. I ordered my crew back. It closed. Since then, have I been alone. . ."

"Bram," Miss Carroll said. "Bram . .you stayed when you could have escaped — and I —"

"I would that I could give you back those lost years, Linda Carroll," Bram said. "I would that we could have been together under a brighter sun than this."

"You gave up your world, to give this one a little time," Tremaine said. "And we rewarded you with a shotgun blast."

"Bram. . .when will the Portal open again?"

"Not in my life, Linda Carroll. Not for ten thousand years."

"Why didn't you recruit help?" Tremaine said. "You could have trained someone. . ."

"I tried, at first. But what can one do with frightened rustics? They spoke of witchcraft, and fled."

"But you can't hold out forever. Tell me how this thing works. It's time somebody gave you a break!"

VI

Bram talked for half an hour, while Tremaine listened. "If I should fail," he concluded, "take my place at the Repellor. Place the circlet on your neck. When the wall clears, grip the handles and pit your mind against the Niss. Will that they do not come through. When the thunder rolls, you will know that you have failed."

"All right. I'll be ready. But let me get one thing straight: this Re-


Virgil
Finlay

pellor of yours responds to thoughts, is that right? It amplifies them —"

"It serves to focus the power of the mind But now let us make haste. Soon, I fear, will they renew the attack."

"It will be twenty minutes or so, I think," said Tremaine. "Stay where you are and get some rest."

Bram looked at him, his blue eyes grim under white brows. "What do you know of this matter, young man?"

"I think I've doped out the pattern; I've been monitoring these transmissions for weeks. My ideas seemed to prove out okay the last few nights"

"No one but I in all this world knew of the Niss attack. How could you have analyzed that which you knew not of?"

"Maybe you don't know it, Bram, but this Repellor of yours has been playing hell with our communications Recently we developed what we thought was a Top Secret project — and you're blasting us off the air."

"This is only a small portable unit, poorly screened," Bram said. "The resonance effects are unpredictable. When one seeks to channel the power of thought —"

"Wait a minute!" Tremaine burst out.

"What is it?" Miss Carroll said, alarmed.

"Hyperwave," Tremaine said. "Instantaneous transmission And thought. No wonder people had headaches — and nightmares! We've been broadcasting on the same band as the human mind!"

"This 'hyperwave'," Bram said. "You say it is instantaneous?"

"That's supposed to be classified information."

"Such a device is new in the cosmos," Bram said. "Only a protoplasmic brain is known to produce a null-lag excitation state."

Tremaine frowned. "Bram, this Repellor focuses what I'll call thought waves for want of a better term. It uses an interference effect to damp out the Niss harmonic generator What if we poured more power to the Repellor?"

"No. The power of the mind cannot be amplified —"

"I don't mean amplification; I mean an additional source. I have a hyperwave receiver here. With a little rewiring, it'll act as a transmitter Can we tie it in?"

Bram shook his head. "Would that I were a technician," he said. "I know only what is required to operate the device."

"Let me take a look," Tremaine said. "Maybe I can figure it out."

"Take care. Without it, we fall before the Niss."

"I'll be careful." Tremaine went to the machine, examined it, tracing leads, identifying components.

"This seems clear enough," he said. "These would be powerful magnets here; they give a sort of pinch effect. And these are refracting-field coils. Simple, and brilliant With this idea, we could beam hyperwave —"

"First let us deal with the Niss!"

"Sure." Tremaine looked at Bram. "I think I can link my apparatus to this," he said. "Okay if I try?"

"How long?"

"It shouldn't take more than fifteen minutes."

"That leaves little time."

"The cycle is tightening," Tremaine said. "I figure the next transmissions. . .or attacks. . .will come at intervals of under five minutes for several hours now; this may be the last chance."

"Then try," said Bram.

Tremaine nodded, went to the suitcase, took out tools and a heavy black box, set to work. Linda Carroll sat by Bram's side, speaking softly to him. The minutes passed.

"Okay," Tremaine said. "This unit is ready." He went to the Repellor, hesitated a moment, then turned two nuts and removed a cover.

"We're off the air," he said. "I hope my formula holds."

Bram and Miss Carroll watched silently as Tremaine worked. He strung wires, taped junctions, then flipped a switch on the hyperwave set and tuned it, his eyes on the dials of a smaller unit.

"Nineteen minutes have passed since the last attack," Bram said. "Make haste."

"I'm almost done," Tremaine said.

A sharp cry came from the wall. Tremaine jumped. "What the hell makes those sounds?"

"They are nothing — mere static. But they warn that the harmonic generators are warming." Bram struggled to his feet. "Now comes the assault."

"The shadows!" Miss Carroll cried.

Bram sank into the chair, leaned back, his face pale as wax in the faint glow from the wall. The glow grew brighter; the shadows swam into focus.

"Hurry, James," Miss Carroll said. "It comes quickly."

Bram watched through half-closed eyes. "I must man the Repellor. I . . ." He fell back in the chair, his head lolling.

"Bram!" Miss Carroll cried. Tremaine snapped the cover in place, whirled to the chair, dragged it and its occupant away from the machine, then turned, seized the grips. On the wall the Niss moved in silence, readying the attack. The black-clad figure was visible, climbing to his place. The wall cleared. Tremaine stared across at the narrow room, the gray-clad Niss. They stood now, eyes on him. One pointed. Others erected leathery crests.

Stay out, you ugly devils, Tremaine thought. *Go back, retreat, give up . . .*

Now the blue glow built in a flickering arc across the Niss machine. The technicians stood, staring across the narrow gap, tiny red eyes glittering in the narrow alien faces. Tremaine squinted against the brilliant white light from the high-vaulted Niss Command Center. The last suggestion of the sloping surface of the limestone wall was gone. Tremaine felt a draft stir; dust

whirled up, clouded the air. There was an odor of iodine.

Back, Tremaine thought. *Stay back* ..

There was a restless stir among the waiting rank of Niss. Tremaine heard the dry shuffle of horny feet against the floor, the whine of the harmonic generator. His eyes burned As a hot gust swept around him he choked and coughed.

NO' he thought, hurling negation like a weightless bomb. *FAIL! RETREAT!*

Now the Niss moved, readying a wheeled machine, rolling it into place Tremaine coughed rackingly, fought to draw a breath, blinking back blindness. A deep thrumming started up; grit particles stung his cheek the backs of his hands. The Niss worked rapidly. their throat gills visibly dilated now in the unaccustomed flood of oxygen . . .

Our oxygen, Tremaine thought. *The looting has started already, and I've failed, and the people of Earth will choke and die* . . .

From what seemed an immense distance, a roll of thunder trembled at the brink of audibility, swelling.

The black-clad Niss on the alien machine half rose, erecting a black-scaled crest, exulting Then, shockingly, his eyes fixed on Tremaine's, his trap-like mouth gaped, exposing a tongue like a scarlet snake. a cavernous pink throat set with a row of needle-like snow-white teeth. The tongue flicked out, a gesture of utter contempt.

And suddenly Tremaine was cold with deadly rage. *We have a treatment for snakes in this world*, he thought with savage intensity. *We crush 'em under our heels* . . . He pictured a writhing rattler, broken-backed, a club descending; a darting red coral snake, its venom ready, slashed in the blades of a power mower; a cottonmouth, smashed into red ruin by a shotgun blast . . .

BACK SNAKE he thought. *DIE! DIE!*

The thunder faded.

And atop the Niss Generator, the black-clad Niss snapped his mouth shut, crouched.

"DIE!" Tremaine shouted. "Die!"

The Niss seemed to shrink in on himself, shivering. His crest went flaccid, twitched twice. The red eyes winked out and the Niss toppled from the machine. Tremaine coughed, gripped the handles, turned his eyes to a gray-uniformed Niss who scrambled up to replace the operator.

I SAID DIE, SNAKE!

The Niss faltered, tumbled back among his fellows, who darted about now like ants in a broached anthill. One turned red eyes on Tremaine, then scrambled for the red cut-out switch

NO, YOU DON'T, Tremaine thought. *IT'S NOT THAT EASY, SNAKE. DIE*!

The Niss collapsed. Tremaine drew a rasping breath, blinked back tears of pain, took in a group of Niss in a glance.

Die!

They fell. The others turned to flee then, but like a scythe Tremaine's mind cut them down, left them in windrows. Hate walked naked among the Niss and left none living.

Now the machines. Tremaine thought. He fixed his eyes on the harmonic generator. It melted into slag. Behind it, the high panels set with jewel-like lights blackened, crumpled into wreckage. Suddenly the air was clean again. Tremaine breathed deep. Before him the surface of the rock swam into view.

NO! Tremaine thought thunderously. *HOLD THAT APERTURE OPEN*!

The rock-face shimmered, faded. Tremaine looked into the white-lit room, at the blackened walls, the huddled dead. *No pity*, he thought. *You would have sunk those white teeth into soft human throats, sleeping in the dark . . . as you've done on a hundred worlds. You're a cancer in the cosmos. And I have the cure.*

W A L L S, he thought, *COLLAPSE*!

The roof before him sagged, fell in. Debris rained down from above, the walls tottered, went down. A cloud of roiled dust swirled, cleared to show a sky blazing with stars.

Dust, stay c l e a r, Tremaine thought. *I want good air to breathe for the work ahead.* He looked out across a landscape of rock, ghostly white in the starlight.

LET THE ROCKS MELT AND FLOW LIKE WATER!

An upreared slab g l o w e d, slumped, ran off in yellow rivulets that were lost in the radiance of the crust as it bubbled, belching released gasses. A wave of heat struck Tremaine. *Let it be cool here*, he thought. *Now, Niss world . . .*

"No!" B r a m's voice shouted. "Stop, stop!"

Tremaine hesitated. He stared at the vista of volcanic fury before him.

I could destroy it all, he thought. *And the stars in the Niss sky . . .*

"Great is the power of your hate, man of Earth," Bram cried. "But curb it now, before you destroy us all!"

"Why?" Tremaine shouted. "I can wipe out the Niss and their whole diseased universe with them, with a thought!"

"Master yourself," Bram said hoarsely. "Your rage, destroys you! One of the suns you see in the Niss sky is your Sol!"

"Sol?" Tremaine said. "Then it's the Sol of a thousand years ago. Light takes time to cross a galaxy. And the earth is still here . . . so it wasn't destroyed!"

"Wise are you," Bram said. "Your race is a wonder in the Cosmos, and deadly is your hate. But you know nothing of the forces you unloose now. Past time is as mutable as the steel and rock you melted but now."

"Listen to him, James," Miss Carroll pleaded "Please listen."

Tremaine twisted to look at her, still holding the twin grips. She looked back steadily, her head held

high. Beside her, Bram's eyes were sunken deep in his lined face.

"Jess said you looked like a princess once, Miss Carroll," Tremaine said, "when you drove past with your red hair piled up high. And Bram: you were young, and you loved her The Niss took your youth from you. You've spent your life here, fighting them, alone. And Linda Carroll waited through the years, because she l o v e d you . . . and feared you. The Niss did that. And you want me to spare them?"

"You have mastered them," said Bram. "And you are drunk with the power in you. But the power of love is greater than the power of hate. Our love sustained us; your hate can only destroy."

Tremaine locked eyes with the old man. He drew a deep breath at last, let it out shudderingly "All right," he said "I guess the God complex got me." He looked back once more at the devastated landscape 'The Niss will remember this encounter. I think. They won't try Earth again."

"You've fought valiantly, James. and won," Miss Carroll said. "Now let the power go."

Tremaine turned again to look at her. "You deserve better than this, Miss Carroll." he said. "Bram. you said time is mutable. Suppose—"

"Let well enough alone." Bram said. "Let it go!"

"Once, long ago, you tried to explain this to Linda Carroll. But there was too much against it: she couldn't understand. She was afraid. And you've suffered for sixty years. Suppose those years had never been. Suppose I had come that night . . . instead of now—"

"It could never be!"

"It can if I will it!" Tremaine gripped the handles tighter. *Let this be THAT night*, he thought fiercely. *The night in* 1901, *when Bram's last contact failed. Let it be that night, five minutes before the portal closed. Only this machine and I remain as we are now*; *outside there are gas lights in the farm houses along the dirt road to Elsby, and in the town horses stand in the stables along the cinder alleys behind the houses*; *and President McKinley is having dinner in the White House . . .*

There was a sound behind Tremaine. He whirled The ravaged scene was gone. A great disc mirror stood across the cave, intersecting the limestone wall. A man stepped through it, froze at the sight of Tremaine He was tall, with curly blond hair, fine-chiseled features, broad shoulders.

"Fdazh ha?" he said. Then his eyes slid past Tremaine, opened still wider in astonishment. Tremaine followed the stranger's glance. A young woman, dressed in a negligee of pale silk, stood in the door, a hairbrush in her hand, her red hair flowing free to her waist. She stood rigid in shock.

Then .

"Mr. B r a m . . . !" she gasped. "What —"

Tremaine found his voice. "Miss

Carroll, don't be afraid," he said. "I'm your friend, you must believe me."

Linda Carroll turned wide eyes to him. "Who are you?" she breathed. "I was in my bedroom —"

"I can't explain. A miracle has been worked here tonight . . on your behalf." Tremaine turned to Bram. "Look —" he started.

"What man are you?" Bram cut in in heavily accented English. "How do you come to this place?"

"Listen to me. Bram!" Tremaine snapped. "Time is mutable. You stayed here, to protect Linda Carroll — and Linda Carroll's world. You've just made that decision, right?" Tremaine went on, not waiting for a reply. "You were stuck here . . . for sixty years Earth technology developed fast. One day a man stumbled in here, tracing down the signal from your Repellor; that was me. You showed me how to use the device . . . and with it I wiped out the Niss. And then I set the clock back for you and Linda Carroll. The Portal closes in two minutes. Don't waste time ."

"Mutable time?" Bram said He went past Tremaine to Linda. "Fair lady of Earth," he said. "Do not fear . . . "

"Sir, I hardly know you," Miss Carroll said. "How did I come here, hardly clothed —"

"Take her. Bram!" Tremaine shouted "Take her and get back through that Portal — fast." He looked at Linda Carroll. "Don't be afraid," he said. "You know you love him; go with him now. or regret it all your days."

"Will you come?" asked Bram. He held out his hand to her. Linda hesitated. then put her hand in his. Bram went with her to the mirror surface, handed her through He looked back at Tremaine.

"I do not understand, man of Earth," he said. "But I thank you." Then he was gone.

Alone in the dim-lit grotto Tremaine let his hands fall from the grips, staggered to the rocker and sank down. He felt weak. drained of strength. His hands ached from the strain of the ordeal. How long had it lasted? Five minutes? An hour? Or had it happened at all. . .?

But Bram and Linda Carroll were gone. He hadn't imagined that. And the Niss were defeated.

But there was still his own world to contend with. The police would be waiting, combing through the house. They would want to know what he had done with Miss Carroll. Maybe there would be a murder charge. There'd be no support from Fred and the Bureau. As for Jess, he was probably in a cell now, looking a stiff sentence in the face for obstructing justice. . .

Tremaine got to his feet, cast a last glimpse at the empty room, the outlandish shape of the Repellor, the mirrored portal. It was a temptation to step through it. But this was his world, with all its faults. Perhaps later, when his strength returned, he could try the machine again. . .

The thought appalled him. *The ashes of hate are worse than the ashes of love,* he thought. He went to the stairs, climbed them, pressed the button. Nothing happened. He pushed the panel aside by hand and stepped into the kitchen. He circled the heavy table with the candlestick, went along the hall and out onto the porch. It was almost the dawn of a fresh spring day. There was no sign of the police. He looked at the grassy lawn, the row of new-set saplings.

Strange, he thought. *I don't remember any saplings. I thought I drove in under a row of trees...* He squinted into the misty early morning gloom. His car was gone. That wasn't too surprising; the cops had impounded it, no doubt. He stepped down, glanced at the ground ahead. It was smooth, with a faint footpath cut through the grass. There was no mud, no sign of tire tracks —

The horizon seemed to spin suddenly. *My God!!* Tremaine thought. *I've left myself in the year* 1901...!

He whirled, leaped up on the porch, slammed through the door and along the hall, scrambled through the still-open panel, bounded down the stairs and into the cave —

The Repellor was gone. Tremaine leaped forward with a cry — and under his eyes. the great mirror twinkled, winked out. The black box of the hyperwave receiver lay alone on the floor, beside the empty rocker. The light of the kerosene lamp reflected from the featureless wall.

Tremaine turned, stumbled up the steps, out into the air. The sun showed a crimson edge just peeping above distant hills.

1901, Tremaine thought. *The century has just turned. Somewhere a young fellow named Ford is getting ready to put the nation on wheels, and two boys named Wright are about to give it wings. No one ever heard of a World War, or the roaring Twenties, or Prohibition, or FDR, or the Dust Bowl, or Pearl Harbor. And Hiroshima and Nagasaki are just two cities in distant floral Japan...*

He walked down the path, stood by the rutted dirt road. Placid cows nuzzled damp grass in the meadow beyond it. In the distance a train hooted.

There are railroads, Tremaine thought. *But no jet plants, no radio, no movies, no automatic dish-washers. But then there's no TV, either. That makes up for a lot. And there are no police waiting to grill me, and no murder charge, and no neurotic nest of bureaucrats waiting to welcome me back...*

He drew a deep breath. The air was sweet. *I'm here,* he thought. *I feel the breeze on my face and the firm sod underfoot. It's real, and it's all there is now, so I might as well take it calmly. After all, a man with my education ought to be able to do well in this day and age!*

Whistling, Tremaine started the ten-mile walk into town. END

It was a strange world and a deadly one, the incredible alien planet —

WHERE THE PHPH PEBBLES GO

By MIRIAM ALLEN DeFORD

Gral and Hodnuth were playing phph. In case you are not a phph fan, and haven't ever seen Bliten's classic *Ways of Improving Your Phph Game*, its essence consists in lobbing pebbles at a target as near the horizon as your skill permits. After each throw, you fly over to see how far you went.

It sounds like a simple game, but it has complicated restrictions and rules, and a good phph player can command any amount of heavy service from the spectators. Since a lot of the Ground Dwellers are also phph addicts (they could never become players, of course, being far too small and light to handle the phph pebbles), this means that a real champion never has to do any kind of work again, being fed, clothed, housed and entertained by his admirers, and can devote all his time to the game.

Gral and Hodnuth, having alternated as champions for many a long ganath, had it pretty easy. But neither of them was given to lying back on his laurels and growing soft. This meant that when a match was announced, Ground Dwellers as well as we Real People came by the hanthoids from zygils around to watch through viewing-tubes — and whichever of the two won piled up a lot of bilibs of voluntary service. (Voluntary service, as most economists admit, is true wealth, since the

pledge is incumbent on the offcrer's heirs until it is fully satisfied. and can likewise be willed by the recipient to *his* heirs).

Naturally, no phph player is absolutely perfect; if he were, there would be no contest and nobody would bother to attend a game. Pebbles fall short, they go awry, and sometimes they are thrown so hard that they escape altogether from our light gravity and fly into outer space. At the end of the game period the referee (usually a superannuated former champion) tots up the score and announces how many times each player missed the target and by which of these errors he missed it. By a rather confusing arithmetical computation he then determines which of them won, and the winner collects his pledges — and the fans collect the side bets they have been making all through the game.

In this particular game Hodnuth won. But then he won about half the time. so that wasn't what gave it its importance. The Ground Dwellers. as everyone knows. are an excitable and volatile race (which is why we conquered them so easily. with the added advantage of our command of levitation and our immensely greater size and strength), so just an ordinary phph game often looks like a riot. When anything out of the way occurs. such as the appearance of a new young contender to take on one of the champions. the Ground Dwellers simply go wild. And this time they practically exploded. I confess that even we Real People were amazed.

One of the Thinkers was discovered attending the game.

Now, when we first arrived here, and cleaned up on the Ground Dwellers and established them in their proper subservient position, the Thinkers were our leaders. It was they who had figured out the whole invasion, had headed the Sixty Hastgunt Flight, and had worked out the tactics and logistics of the Great Conquest. But once we were settled and things were going smoothly, they called a last General Meeting and told us that their part was finished, and that now they were going to retire to the Far Colony and go on with their Thinking. Since then, if a problem arises that our own Council can't handle, one of us has to fly to the Far Colony and obtain the advice of a Thinker. They live together there with their families (supported of course by all of us) and spend all their time in study and research. It is one of the natural advantages of us Real People that we have these specialized Thinkers to do all our intellectual and cultural tasks and teach us what we need to know, leaving us others free for the truly satisfying functions of government and commerce.

Never in all the ganaths since that last General Meeting had a Thinker been seen among us, and that so august a being should condescend to attend a mere phph game was unbelievable. Yet there he was — easily recognizable, naturally,

since all Thinkers have long white hair and long white beards. (Even the female Thinkers — though some heretics say their beards are artificial.) In fact, that is the way one knows that a new Thinker has been born. Soon after birth his hair and beard begin to grow. both white, and as soon as he is weaned we fly him to the Far Colony to be reared and educated by his own. If a Thinker has a child who isn't one, they send him back to us.

As soon as the spectators realized that a Thinker was among them, the excitement reached boiling point. The Ground Dwellers almost went crazy — for, of all things. the Thinker had seated himself not in the perches of honor of the Real People, in front, but in the Ground Dwellers' bleachers. We ourselves noticed all the scrambling and heaving, and when some of us flew over to investigate we could hardly believe our eyes.

When I say scrambling and heaving, I don't mean they were mobbing him. They're much too afraid of us for that, and anyway their reverence for the Thinkers is positively religious—much more so than ours. After all the Thinkers are simply specialized members of our own race, and though we revere them we could scarcely worship them. as the Ground Dwellers do. No. they were clearing a respectful space all around him, but then they kept gazing at him in awe, half of them falling on their knees in his presence. I sneaked a glance at the phph players, and as I suspected thev were looking anything but happy. Phph champions are pretty vain. They don't care for rival attractions.

One of our party—it was Sephar, who as usual pushed himself forward —bowed to the Thinker and asked if he wouldn't be more comfortable among us. But he shook his white head and said no, he could see better where he was. (I wonder if Thinkers may not have a bit of vanity too, and if he wasn't enjoying seeing all those poor creatures prostrate themselves around him!)

"Then will Your Honor join us when the game is over?" persisted Sephar. "If you would enter my poor pit of a dwelling, it would overwhelm me with pleasure to have you feast with us."

His poor pit of a dwelling, indeed! I wish you could see the palace he lived in — the roof-opening is plated with solid nagh!

I was just about bursting with indignation, but I should have known you can trust a Thinker to deflate a fellow like that.

"Thank you, brother," he said mildly, "but I'm here doing some research and I'll have to fly back right after the game."

Sephar opened his mouth to argue, but by that time I had him by the wing and I pulled him back — he said rudely, I say firmly. "Do you want to give us a bad name for presumption, brother?" I whispered. "Don't interfere with a Thinker when he's Thinking!"

Some of the rest of us nodded agreement, so Sephar shut up. But he had a nasty gleam in his eye and I braced myself for trouble later We bowed and returned to our places. Thanks to Sephar and his performance, I missed the last throw Gral made, which lost him the contest. But I heard the moan from the spectators who weren't watching the Thinker instead, so I knew he'd lobbed a too-high one. It must have been a humdinger — one of the throws into space. I glanced back as I was flying away, and the Thinker was standing up and gazing intently after it. Well, I thought to myself, imagine a Thinker getting worked up over a phph throw!

The game was over soon after that, and Hodnuth went around collecting his pledges while Gral was being consoled by his backers When I got a chance to look again where the Thinker had been sitting. he had disappeared.

The one who hadn't disappeared was Sephar. He was waiting for me, just as I'd expected.

"Not here!" I snarled at him. "Do you want the Ground Dwellers to see Real People in a brawl?"

So we adjourned to Marnag's courtyard, which was the nearest dueling place, and it was a nice little fight, and I won. Quite a group gathered around, and I was pleased to see that several of my friends were making bets on me. Some of Sephar's sycophants lugged him off to the hospital to have a fractured wing-tip treated. The rest came home with me and we spent our winnings on a good dinner with plenty of mastonyi to wash it down.

Several of us speculated about the Thinker, and we wondered if his "research" wasn't a fake and if he'd just decided to enjoy a game like the rest of us.

"After all," Marnag pointed out, "he might be only a boy. You can't tell with a Thinker. I suppose young Thinkers can be frivolous and rebellious like our own youngsters."

Nipar, who is something of a wag, yelled: "Hey, listen to Marnag — he's Thinking! Come on, Marnag, are you really a Thinker in disguise? Let's see if that green hair of yours is dyed — you could have shaved the beard!"

And he poured a pitcher of mastonyi right over Marnag's head to find out if the color would come off After that, the party got really rough, and I don't remember the rest of it.

A whole ganath after that, the Thinkers sent one of their messengers to tell us in the Council that we were summoned to a meeting in the Far Colony. That doesn't happen often, so we knew something extremely important must be up. I for one was all of a twitter.

Not one of us connected the summons with that Thinker who had come to the phph contest between Gral and Hodnuth. That was our stupidity. We should have guessed it when we found the two champions had been sent for also. Gral flew

next to me on the trip, and of all things, both he and Hodnuth were carrying with them several phph pebbles which the Thinkers had ordered them to bring along.

It's hard to tell the Thinkers apart — at least for us who aren't Thinkers — but I recognized the one who had been at the game. He sat right by Hledo, who always acts as their spokesman when we consult them about anything.

"Welcome and thank you for coming so promptly," Hledo began. "Did you two phph players bring the pebbles?"

Gral and Hodnuth handed over the load, and Hledo passed it on to the one we knew.

"This is Myrwan," Hledo said, "and he will tell you the urgent thing he has Thought."

"I became interested a long time ago," Myrwan began in the rather rusty voice all the Thinkers except Hledo have — they spend most of their time in study and meditation, and don't talk much among themselves — "in a question that seems never to have occurred to any of Us.

"Where do phph pebbles go when they are thrown beyond our feeble gravity and escape into outer space? What becomes of them in the end? And who, if anyone, collects them, and what conclusions about them and our world do such persons draw?"

I raised my hand to ask a question, and Myrwan nodded.

"I don't understand," I said politely (Meaning he was being too abstruse for any of us, for it is understood that there is no keener apprehension in the council than my own.) "Is Your Honor implying that there exist outside our world other intelligences that would be capable of observing and drawing conclusions from the pebbles?"

"Exactly. I know that the general belief is that it is impossible that extraplanetary beings can exist, least of all intelligent beings. That was the belief of my own colleagues until I gave them the results of my recent Thought. It is the reason We have summoned you here.

"For some time now We have been receiving peculiar radio waves from outside the world. We have considered them merely manifestations of random radiation from other planets and stars. But now they have suddenly become — shall I say rhythmical? Measured? Directional? They leave the impression that someone, or something, is trying to communicate with us.

"The astronomers among Us have become more and more concerned. We have finally been led to the reluctant belief that Our former theories have been wrong — that this actually is not the only inhabited planet

"Now, I need not tell you how disastrous it would be for us if that were true. If there *are* intelligent beings on other planets, if they are trying to communicate with us, then the next step would be that they would try to visit us."

Marnag raised his hand.

"What harm would that do? If such beings exist, and if they could come here, why couldn't we go there too—wherever it is—and wouldn't that enrich our lives? Of course I'm not a Thinker—" I had a fleeting vision of Nipar and the pitcher of mastonyi!—"but I'm a Real Man and I can see no reason why it would hurt us to find we are not alone in the universe."

"No," said Myrwan dryly. "You are not a Thinker, my friend. We enjoy here a completely stable civilization. It is the best of all possible social systems. We do not want it disturbed."

"I see," said Marnag, and several others nodded. I confess that a heretical idea crossed my mind — that any such disturbance might well dethrone the Thinkers first of all — but I suppressed it. Myrwan went on:

"And that is where the phph pebbles come in. In the course of my researches on these previously unknown waves, I began to wonder what, if anything, had initiated the interest of outsiders in our planet, assuming that outsiders exist. Certainly we had made no move toward trying either to reach or to communicate with any putative dwellers on other planets. There had been no major changes on our planet that could have enlisted the attention of outside astronomers, even granting that they have telescopes as powerful as our own.

"Only one thing, so far as I can ascertain, has ever left this planet for outer space. And that was the phph pebbles.

"We call them pebbles. To beings who might consider us giants — and if there really are intelligent beings in other worlds they might well be of an entirely different size from us, though no less dangerous for all that — they might seem huge meteors. Suppose that, though most of them would undoubtedly burn up and all of them be considerably reduced before they struck another planet as meteorites, some of them at least might still be sufficiently large to be analyzed chemically? And suppose that where they struck there existed beings capable of analyzing them?"

This was getting a little deep for anybody not a Thinker to take in. Several Council members raised their hands plaintively and so indicated.

"All right, I'll try to make it plainer," Myrwan said. "Let us pretend that instead of the little fragments of space debris that fall harmlessly in the annual meteor showers here, we were pelted with enormous chunks of matter, perhaps causing major damage to property and life. Wouldn't We immediately undertake an intensive study to determine whence they came, and of what, precisely, they consisted?

"And if We found that these residual meteorites contained material indicating their origin in an inhabited world — still worse, in a world sufficiently evolved to entail

the possibility or probability that its highest life-forms might be intelligent or even civilized — wouldn't we take steps at once to investigate? Moreover, wouldn't we be outraged to the point where our primary object would be to avenge ourselves?

"Of course we would. And so of course would any beings on other planets, under similar circumstances."

"You mean," Marnag asked, "that if beings came here from space they would attack us?"

"That too But even if that were not their reaction, curiosity alone could be enough to spur them on to exploration."

"But—but what can we do?" quavered old Gantes. He is really growing too senile to be on the Council much longer.

"We can discourage them. And we can mislead them."

"How?"

"We can make certain that nothing reaches them in the future which gives them the least sign that any but the lowest forms of life, if even those, exist in our world.

"I studied this whole question systematically, as We always do. I came to the conclusion that only the phph pebbles could possibly betray us. I attended a phph game to see for myself if a pebble actually could be thrown with sufficient force to become, as it were, an artificial meteor. I found that it could. Indeed, I saw Gral make such a throw."

Gral looked stricken. He fell flat on his face, groveling before the Thinkers.

"Oh, Your Reverences," he cried, "I never dreamt — I never —"

"Get up, Gral," Myrwan ordered. "Nobody's blaming you. Nobody expects anyone but a Thinker to Think."

"We'll make it a rule from now on to hold our shots. We'll bar anyone from the game forever who lobs a pebble too hard," Hodnuth promised fervently.

"Far from it," said Myrwan. "On the contrary, in the future you must concentrate on supra-gravity shots. Give extra points to anyone who performs one."

"Why?" several of us murmured, completely bewildered.

"Because I have already analyzed three pebbles I brought back with me from the game. With the ones you have brought, I shall be able to make further tests. If they confirm my previous findings, I Think We shall be able to mislead any potential attackers.

"Every phph pebble henceforth will be doctored. To use any unauthorized pebble will become a felony. What has happened in the past we can't change, but there may still be time to save ourselves. From this time forth there are going to be more 'meteors' shot off our atmosphere than ever before — and every one of them is going to tell a completely false story about conditions in their place of origin.

"Of course We *may* be entirely wrong. These new waves may be due

to purely physical causes. Other planets may all be as devoid of intelligent life as We have always assumed. But if there is the faintest possibility — and I feel there is — that we are in danger, it would be fatal not to take such measures as we can to avert it."

"What's in the pebbles now that could tell anything about us?" Gral asked. "And if something is, how could you alter it?"

Myrwan froze up a little. The Thinkers don't like to have us ask detailed questions. But he realized that Gral was still upset, and answered kindly.

"It wouldn't mean a lot to you if I told you. But you can understand this much — chemical analysis of the pebbles I've looked at so far shows fragments of embedded fossils."

"Of plants, you mean?"

Myrwan smiled.

"Plants don't become fossilized," he said. "In one pebble there was a microscopic piece of a metal knife. In another there was half of a fossilized tooth. Ground Dweller relics, true, but human. You must remember that all the hills around here from which you gather the pebbles are really million-ganath-old burial places of the Ground Dwellers. We haven't bothered to dig up most of them because we're so rich in prehistoric remains, with our immensely old civilization, that we have all the fossils and ancient artifacts we need.

"But let's imagine an alien civilization a great deal younger than ours. Let's imagine that in even one of those pebbles — which would be meteorites to them — even a minute trace of that kind of thing should be left. What would they Think? — for they would have to have Thinkers too, to be civilized at all.

"I'll tell you what they'd Think. They'd decide that somewhere out in space there is a rich, undiscovered planet full of valuable knowledge and, even better, valuable artifacts. Probably a world with a culture much more advanced than their own. And they'd try hard to trace the direction from which those meteorites came, and to calculate the distance. Then suppose they had some means of transportation in space.

"*That* may well be what these new radio waves mean. They may be attempts at communication — if we were foolish enough to respond to them. We don't dare to take any chances.

"So from now on there are going to be swarms and swarms of those meteoroids—and every one of them is going to be a real artifact on its own—a *manufactured* one, made according to Our specifications, carrying an unmistakable message. A false one!

"They will be cunningly constructed from forms of matter injurious to any conceivable variety of life. We'll cover them all. And they'll be barren of even the most primitive bacteria. They will carry

in themselves a silent warning: 'Approach the planet from which these come at peril of your instant death ... not matter what kind of being you are!' That should save us forever."

I'd been wondering why Sephar had kept his big mouth shut all this time. To my way of feeling, he should never have been with us at all. He would never have been a Council member if he hadn't been a multibilibaire. But I'd won a fair fight with him, and officially we had to be friends, so I hadn't protested when I found he was included in the summons.

But now the big blowhard had to put his two grocs' worth.

"Your Reverence — Your Honor —" he spluttered. "May I ask a question?"

"Certainly, brother."

"Since players have been lobbing pebbles out into space for thousands and thousands of ganaths, and as Your Honor says, some of them must long ago have landed somewhere, who knows what dead giveaways may have been in any of them?"

"Is that your question?"

"No, I have two. First, why haven't these intelligent beings whose existence you're presupposing —" I saw Myrwan's face set, and I knew he'd noted that rude and insulting word, but I managed to conceal my smile — "why haven't they come here before this? And since they haven't come, if they're smart enough to figure out our whereabouts why aren't they also smart enough to realize the difference between the old pebbles and these new ones, and to know that we're putting something over on them?"

We sometimes say that though the Thinkers are of course overwhelmingly our superiors mentally, they lack the emotional control which is the great characteristic of the rest of us Real People. I wish those scandalmongers could have seen Myrwan then. His face was as white as his beard and his wings quivered, but he let Sephar have his say out and he answered him very quietly.

"As to your first question, brother" (and if anybody ever called me "brother" in that tone I'd know it was a case of fight or run) "the only logical reason is that it must be only recently that such beings have reached a state of culture where they are able to analyze the pebbles and draw the right conclusions from them.

"And the answer to your second question is that we can only hope. Hope that all of the pebbles already in their possession are free of — shall we say, incriminating evidence? All we can guarantee is that all they find in the future will be. Does that answer you satisfactorily?"

"It will have to," muttered Sephar sullenly. I moved away from him and was glad to notice that I was not the only one.

"What I have said to you," continued the Thinker calmly, "you may communicate to any of the Real

People you wish. You will naturally keep it from the Ground Dwellers; there is no reason to agitate them at present. Time enough for that if we should ever need them as soldiers — which I devoutly hope we never shall."

"But who will make the artificial pebbles if the Ground Dwellers aren't to know about them?" asked Marnag. "What about our slogan — 'Thought from the Thinkers, government and administration from the Real People, technical skill and heavy labor from the Ground Dwellers'?"

"*We* shall handle that. When you go home, tell Earnig I want to see him at once. Brief him first. He and his Bureau will see that the job is done, and the Ground Dwellers needn't be told just what they are making. They'll be delighted to hear that We are planning a new kind of phph pebble to increase the interest of the game — they love it whenever one is batted clear away."

Well, all this was last ganath. The new pebbles are in use. So far nothing has happened — unless you count the fact that, according to Myrwan, those peculiar radio waves have ceased. Let us hope that if his whole theory is correct — and Thinkers don't talk about their Thoughts till they're pretty sure of them — those alien beings have given up, decided either that they were mistaken and there is no intelligence here able to communicate, or that they themselves haven't the ability to interpret our answers.

Sephar? Oh, he isn't around any more. One of the Thinkers is doing some experiments in Psychological Adjustment. Hledo asked the Council's recommendation of somebody they could commandeer as a test subject, according to the Agreement on Thinkers' Privileges, and I got them to suggest Sephar. He was very nasty about it, but I ignored his underbred invective. I felt it my duty also respectfully to remind Hledo of Sephar's past indiscretions, in case they'd forgotten.

Usually when the Thinkers have finished with a subject he's no longer of much use and they put him in a rest home for the remainder of his life. So since I've done pretty well for myself lately, I was able to buy Sephar's home, with its nagh-plated roof-opening, and move into it.

He had a very attractive wife, who of course couldn't go with him to the Far Colony. It just goes to show that virtue (as one of the Thinkers once remarked wittily) is its own reward. END

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THIRD PLANET

By MURRAY LEINSTER

The aliens had lost their lives to nuclear war — but their loss might be the salvation of Earth!

I

It was, as usual, a decision on which the question of peace or atomic war depended. The Council of the Western Defense Alliance, as usual, had made the decision. And as usual the WDA Coordinator had to tell the Com Ambassador that the Coms had won again. The WDA would not risk atomic war over a thirty-mile shift of a national border in southeast Asia.

"Perhaps," said the Com Ambassador politely, "it will be easier for you personally if I admit that our Intelligence Service has reported the decision of your Council." He paused, and added, "in detail."

The Coordinator asked wearily, "How much detail?"

"First," said the Ambassador, "you are to insist that no decision has been reached. You are to play for time. If I do not agree, you are to offer to compromise. If I do not agree, you are to accept the settle-

ment we suggested But you are to ask urgently for time in which to remove the citizens we might feel ought to be shot This is not an absolute condition, but you are to use every possible means to persuade me to grant it."

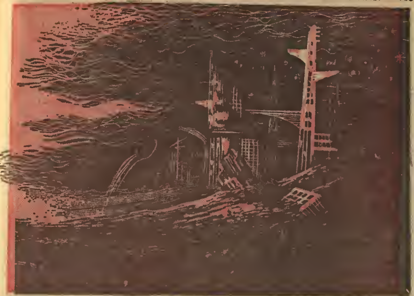
The Coordinator ground his teeth. But the Council wouldn't go to war for a few thousand citizens of an Asiatic country — who would probably be killed in the war anyhow There would be millions killed in Western countries if the war did come

"I have much respect for you," said the Ambassador politely. "so I agree to three days of delay during which you may evacuate disloyal citizens by helicopter On the fourth day our troops will move up to the new border It would be unfortunate if there were clashes on the way."

"We can't get them out in three days!" protested the Coordinator. "It's impossible! We haven't enough copters!"

"With warning to flee," said the Ambassador, "many can reach the new border on foot."

The Coordinator ground his teeth again That would be a public disgrace — and not the first one — for the WDA for not protecting its friends. But the public in the Western nations did not want war. It would not allow its governments to fight over trivial matters. Its alliance could not make threats. On the other hand, the public in the Com nations had no opinions its governments had not decreed. The Com



nations could threaten. They could even carry out threats, though made for trivialities. So the WDA found itself yielding upon one point after another Eventually it would fight, and fight bravely, but too late.

The Coordinator said heavily, "You will excuse me, Mr. Ambassador I have to see about getting as many copters as possible to southeast Asia."

Some hundreds of light-years away, the Survey ship *Lotus* floated in space, a discreet number of millions of miles from the local sun It was on a strictly scientific mission, so it would not be subject to Com suspicion of having undesirable political intentions. At least, they hadn't demanded to have an observer on board. Com intelligence reports were notoriously sound, however, and possibly spies had assured their employers that the *Lotus's* mission was bona fide. Her errand was the mapping and first-examination of a series of sol-type solar systems. This was the ninth such system on the list. The third planet out from the sun, here, lay off to starboard. It was near enough to have a visible disk to the naked eye, and moderate magnification showed ice-caps and permanent surface markings that could be seas and continents. As was to be expected, it was very much like a more familiar third planet out—Earth

The skipper gave Nolan the job of remote inspection while the gross examination of the system went on.

Nolan had a knack for such work, and much of it naturally fell to him.

"Okay!" he said resignedly "Another day, another world!"

"My private nightmare," said the skipper, with humor, "is bug-eyed monsters. Try not to find 'em here, Nolan. Eh?"

He'd said that eight times before on this voyage. Nolan said, "My private nightmare is getting home and finding out that while we've been finding new worlds for men to live on, they've started a war and made Earth a place to die on. Try to arrange that it doesn't happen before we get home. Eh?"

He'd said that eight times before on this voyage, too.

"I wish us both luck. Nolan," said the skipper. "But that ball out yonder looks plausible as a nest for bug-eyed monsters!"

He shook his head and went out. He was still being humorous Nolan set up his instruments and went to work. As he worked, he tried to thrust away the thoughts that came to everybody on Earth every day They were as haunting, some light-centuries from Earth, as back at home. There was the base the Coms were building on the moon. The WDA had an observatory there, but the Coms were believed to be mounting many more rockets than telescopes. And there was that unsatisfying agreement made between the Coms and WDA just before the *Lotus* took off Each promised solemnly to notify the other of all space take-offs before they happened. The idea was to prevent a mistake by which a Pearl-Harbor-style attack might be inferred when it wasn't really happening. The fact that it could be prepared against was evidence of the kind of tension back on Earth.

But the *Lotus* was far from home. She lay some seventy-odd millions of miles out from the sol-type star Fanuel Alpha, whose third planet Nolan was to look over.

He sent off a distance-pulse and took angular measurements of the planet's disk. The ratio of polar to equatorial diameters was informative. The polar flattening said that the day lasted about thirty hours. Almost like Earth's. The equatorial diameter of 8200 miles was much like Earth's. The inclination of the axis of rotation indicated seasons — not exaggerated, but much like the seasons on the third planet of Sol. The size of the ice-caps indicated the overall planetary temperature. There were clouds In fact, there was a cloudmass in the southern hemisphere that looked just like an Earthly tropic storm undergoing the usual changes as it went away from the equator This was very much like Earth! And the dark masses which were seas...

Nolan frowned. Those mud-colored patches were water. Undoubtedly A narrow-band light filter proved it But the areas which were neither sea nor cloud mass? There were three levels of bright-ness to be seen on the disk outside

the polar areas. One was sea-bottom. One was cloud. The other...

Nolan fretted a little. There was something wrong. The solid ground surface of the planet was too light in color. It was such items that a person with a knack for it would notice sooner than a man without the knack. Vegetation should be more nearly midway between sea-bottom and cloud mass in color.

Nolan fitted in the chlorophyll filter On the planet of a sol-type sun, vegetation has to use chlorophyll or else. Through this filter the clouds would show, of course They were white and reflected all colors of light. But no color that chlorophyll didn't reflect could pass through the filter.

The cloud masses showed clearly. Nothing else appeared The filters would have shown vegetation. It didn't. It said there wasn't any.

Nolan stepped up the magnification. He saw other things. He didn't like them. He got some maximum-magnification pictures and interpreted them with increasing grimness.

He went to make his report just as the system constants began to reach the skipper. The local sun's mass was 1.3 sols. The solar rotation period was thirty-four days. There were sunspots of perfectly familiar kinds. The Lauriac Laws about the size and distribution of planets in a sol-type system were borne out. One was small, and its sunward side was probably at a low red heat. This was like Mercury. Planet Two, like its analogue Venus in the home system, would be resolutely unoccupiable by man. Planet Four — analogous to Mars — was smaller than Three and had a very thin atmosphere. There were gas-giants in orbits six and seven. Then a novelty Lauriac's laws predicted things about fifth planets, too, but they'd never been verified because fifth planets were unstable. They blew up. Only fragments—asteroids—had so far been noted where fifth planets of sol-type suns ought to be. But there was a fifth planet here, rolling magnificently through emptiness. It matched the Lauriac predictions. It had an atmosphere, which should contain oxygen It was the first sol-system fifth planet ever observed.

There was a babble in the skipper's office as the discoverers of the fifth planet told him about it.

Nolan said curtly, "I've something more urgent to report. Planet Three ought to be like Earth. It was It isn't, any longer. It's dead!"

Nobody paid attention. There was a fifth planet! It was unparalleled! All the theories about the absence of fifth planets could now be checked!

"I'm telling you," said Nolan sharply, "that the third planet's dead! It was alive, and something happened to it! It has seas and clouds and ice-caps, and they're water! But its land surface is pure desert! Where life can exist. it does. Always! Life did exist here Now it doesn't." He turned to the skipper, "Maybe bug-eyed monsters killed it,

skipper. It looks to me like murder!"

Then they stared at him. He spread out his pictures. He pointed out this item and that. They were conclusive. Nobody else might have realized the facts behind them quite so soon, but when put together they fitted.

"Familiar, eh?" asked Nolan sardonically. "You recognize the pictures like them before. They weren't tures like them before. They weren' made with cameras, like these, but artists drew them from descriptions of what would happen. Here it's happened! I think," he added, looking at the skipper, "that this is more important than fifth planets. I think we'd better go over and get what information we can and take it home. Death like this implies life a lot like men. If non-human creatures can do something as human as this, we'd better get the word back home so something can be done to get ready before we find them — or they find us."

The skipper went carefully over the pictures. On one he put his finger on a feature Nolan hadn't mentioned. He seemed to wince.

"I think you win, Nolan," he said painfully. "We'll send a drone down. I doubt we can land, but this ought to be checked. Immediately. Maybe I should add — inconspicuously."

"Confidentially," said the Com Ambassador to the Coordinator of the WDA, "confidentially I agree that it is a trivial matter. But we are a new nation. Our people lack perspective. They rejoice in the strength and vigor of the nation of which they are citizens. They will not allow that nation to display what they consider weakness in any matter. One has to allow for a certain exuberance in the people of a nation newly freed from the tyranny of capitalists and warmongers such as still enslave the people of your countries. We cannot yield in this matter."

The Coordinator said:

"To be confidential in my turn, we both know that what you just said simply isn't true. Your government decides what its public shall think. It makes sure they don't think anything it doesn't want them to."

The Com Ambassador shrugged his shoulders. He was very polite. He did not even pretend to resent being called a liar.

"Now, my country intends to move forward in this matter in ten days," he observed. "And it would be deplorable if our soldiers were fired on."

II

It turned out that it wouldn't have mattered if the *Lotus* had sent screaming notifications of its presence throughout all nearby space. There were detectors out, of course, but they reported absolutely nothing as the *Lotus* moved on toward Planet Three. There was static from storms upon the planet. It grew louder as the survey ship approached. But there was no sign of anything alive.

The *Lotus* cruised some two hundred miles above seas and cloud masses and desert, photographing as she followed a search pattern that covered all the sunlit hemisphere. There were mountains in the tropics which by all the rules of meteorology should have had rain forests at their feet. They didn't. There was a river system which ran like the Nile for a thousand miles or more, through deserts like those of Egypt. There should have been at least a ribbon of vegetation along its banks. There wasn't. Where it reached the sea was an enormous delta.

A drone went down and reported temperatures and humidity and the composition of the atmosphere. and the radiation background count. One would have thought the records those of Earth. The background count was a trifle high — 3.9 instead of 3.6 — but there was eighteen per cent of oxygen in the atmosphere. The only oddity, there, was nearly a full per cent of helium. When the drone came up it brought samples of soil and sea water There was no life in either. The soil was mostly mineral dust, but an electron microscope disclosed abraded fractions of pollen grains and the like. The sea water sample had evidently been picked up by the drone's dredge from some shallow There were tiny, silicious shells in it. Plankton They had been alive, but were so no longer.

"I think," said Nolan. "that I make a landing Right?"

The skipper said crossly, "Yes. "You're the best man for it. You notice things. But I doubt you'll learn very much." He tapped the written report that the radiation background count was 3.9. "It happened a long time ago. A long, long time ago!" Then he said with a totally unsuccessful attempt at humor, "Try and find out that it was bug-eyed monsters, eh? It looks too much like Earth! I'd rather blame monsters than men!"

Nolan growled and went to prepare for the landing. Two other men would go with him, of course. The *Lotus* wouldn't descend. It cost fuel to make landings Unless there was some remarkable specimen that a drone couldn't handle the ship would stay aloft.

So a drone took three of them down to ground, a second drone following with equipment They had weapons, of course. Men never land anywhere without weapons. They had the material for a foam-house camp. They had a roller-jeep, running on huge inflated bags. It would run efficiently on anything from sand to swamp mud, and float itself across bogs or rivers. They had cameras and communicators. Nolan had picked Crawford for geology and Kelley for communications. They could get other specialists from the ship. if desirable.

The ground where they landed was desert: nothing more. There were enormous dunes like gigantic frozen swells of sand. Sometimes there were miles between crests. They landed close to the mud banks

northern icecap to avoid the deep gorges in which rivers ran farther south. On the first day they set up their camp.

Mountains reared to the north of them, covered almost to their bases with ice. These they need not explore. Instruments would do most of the landing-party work, in any case. But they inflated small balloons and sent them skyward, to learn about currents of the upper air, and Crawford took painstaking photographs of dune formations, and they set up a weather radar. They checked the water recovery from the camp's air-conditioner. It would supply their needs. When night drew near, with all instruments recording, they watched the sunset.

It was amazing how splendid and how magnificent a sunset could be. Not many men see sunsets these days. The three of them, aground at the ice-cap's edge, saw enormous mile-long dunes reaching away as far as it was possible to see. They cast black shadows. Then glories of crimson and gold rose from the western horizon of this dead and empty world. There was ice and snow upon the mountains, and unbelievable tints and blends of colors appeared there. After a long, long time the light faded away. Then there was nothing to see but the stars, and nothing to listen to at all. This world was dead. They went in their camp-house and shut out the dark and the silence.

On the second day, Nolan went in search of permafrost. Their instruments faithfully recorded everything they needed except such items as this. Nolan found permanent ice in a valley of the northern mountains. It was perpetually frozen ground which might not have thawed in a thousand thousand years. He dug down through surface ice to the permanently frozen soil beneath it. That soil was not desert sand. And preserved in it Nolan found the blackened roots of plants, and the blackened blades of something like grass, and even some small, indefinite objects which had been seeds or fruit.

They hadn't died with the planet. They were far older than that catastrophe. But they were proof that once this world lived and throve.

During what was left of the daylight, Nolan and Kelley went south to a river gorge and photographed it for the record. The river had cut a gorge a full two hundred feet deep in the wind-deposited dust which was everywhere. There were now-dry gullies which undercut the dune-sides and at times dumped mud into the slowly flowing liquid of the river. There were no colorings save dust and mud. The river itself was mud. It flowed very, very slowly and without elation.

They came back depressed. An airless planet holds no life, but it defies life to establish itself. A methane-ammonia planet fights the intrusion of men with monstrous frigid storms. But this world was designed for life. That it was dead

was tragedy Its rivers flowed sullen, syrupy mud which moved reluctantly toward the lifeless seas.

Kelley wouldn't look at the sunset this second night He went into the camp and turned on music. Crawford watched for a little while only There were clouds. There were breezes One knew that here and there rain fell in gentle showers which should have nourished grasses and flowers and filled the air with fragrance. But instead it tell upon impalpable dust and turned it to mud which flowed slowly into gullies and into rivers which were also mud and moved onward, until perhaps after years the soil would become part of a mud-bank in the ocean.

Nolan came into the foam-walled house and said shortly, "We'll finish up tomorrow and leave."

Kelley said abruptly, "Nobody's made any guess about why everything died, here. But we all know!"

Crawford said reflectively, "It must've taken a lot of intelligence to murder this planet. When d'you suppose it happened?"

"Ten thousand—twenty thousand years ago," said Nolan "The whole place must have been radioactive, air and all. But if they used cobalt the background count could be down to 3.9 in ten or twenty thousand years."

"We haven't," said Kelley, "seen any craters. Even the pictures from out in space didn't show bomb-craters."

"When everything died and turned to dust," said Nolan, "there'd be dust storms There still must be. They'd cover anything! There was a terrific civilization in part of what's now the Sahara, back on Earth. By pure accident they've found a patch of highway and a post-house. Everything else is covered up. Cities, highways, dams, canals... And that's heavy sand instead of fine dust! The *Lotus* found some shadows on a photo. They want us to look and see what cast them. We'll look at it tomorrow and then leave."

Crawford said deliberately:

"We three have had a preview of what Earth will be like before too long! I wonder if it would do any good on Earth to show them what we've found?"

"It's being argued on the ship," said Nolan. "Some say we'd better suppress the whole business."

Crawford considered.

"The Coms aren't a very believing people," he said slowly. "But our people are. If we report this, our people will believe it. But the Coms can tell their people it is lies. Our people will want peace more than ever if they see what a war will mean. But the big-shot Coms will just take that as a reason to demand some more concessions, and more, and more. Like demanding to build a base on the moon. . ."

"I'm going to bed," said Nolan. He added ironically, "I hope you have pleasant dreams!"

He did go to bed, but he slept very badly. The others slept no better All three of them were

up before sunrise. They saw it. And to Nolan the coming of the light seemed somehow like an eager arrival of the new day, anxious to see if some tiny thread of green somewhere lifted proudly from brown earth to greet it. But none ever did. Or would.

"We should be through by noon," said Nolan.

They set out in the jeep. They abandoned the camp. They would abandon the jeep, too, presently, when they went up the ship that waited in orbit.

They headed west, and Kelley took over the microwave set that sent a wide-fanning beacon skyward. The *Lotus* was in orbit now Every ninety minutes she was overhead. She'd completed the mapping of the planet. Every square foot of its surface had been photographed from aloft

They drove. The ungainly inflated bags which took the place of wheels rolled unweariedly, at first over dew-wetted dust and then over the minor gullies which, so near the icecap, were not yet gorges. They went on for twenty miles, and the abomination of desolation was all about them.

"We shouldn't tell about this back home." said Kelley abruptly. "If the Com people saw it, they'd know that no —" his tone was ironic — "national aspiration justified the risk of this. But they wouldn't see it. And our people might look at it and decide that anything was better than this But it isn't."

Nolan said nothing. He didn't believe that the discovery of this dead planet could be kept a secret for very long.

The mountains drew back to northward and the desert took their place. The *Lotus* went by overhead, unseen. But it gave a message to Kelley.

"We're on course," he reported. "The ship just said so. Ten miles more."

In ten miles they came upon a city, or what had been one. It was partly buried in the omnipresent dust. That is, they saw part of a city's remnants showing in the mile wide trough between dunes hundreds of feet high. There were other remnants between two other dunes, and still more in yet other troughs beyond Structures of stone had existed, and portions of them remained. They had cast shadows the *Lotus* had discovered from aloft. The stone remains were abraded by the dust-carrying winds of a hundred centuries. Their roofs had been crushed when monster dunes formed over them. They had been reexposed to the sunshine when winds moved the dunes away There was no metal left. No glass. No artifacts. They had been buried tens or hundreds of times. and uncovered as many. There was nothing left but skeletons of stone which cast angular shadows, though their fragments were rounded by centuries of patient wind erosion.

It had been a very great city. but Nolan made the only observation

that could tell anything about its occupants.

"The builders of this city," he said tonelessly, "used doors about the same size we do."

And that was all they could find out. Presently:

"New York will be like this eventually," said Crawford. "And Chicago. And everywhere else."

Kelley spoke suddenly into the microwave transmitter. He said sharply to the ship, invisibly overhead:

"Yes! Send down the drone! We've had it!"

The Council-member from Brazil made an impassioned speech in the supposedly secret meeting of the Western Defense Alliance. He pointed out with bitter factuality that no past yielding to Com demands had gained anything. Further yielding would be suicidal. He made a fierce demand that the WDA present a united front against this fresh diplomatic pressure. That it refuse, flatly and firmly and with finality, to make a single concession on a single point. It was a good speech. It was an excellent speech. It and others like it should have been made a long time before. The Coordinator of the Western Defensive Alliance nodded at its end.

"I agree," he said, "with every word the representative from Brazil has spoken. I think we all agree. The practical thing to do, of course, is to send a combined expeditionary force to maintain the independence of Sierra Leone This force should be formed of contingents from every Western Defense Alliance nation, and it should have orders to prevent the entry of Com troops into Sierra Leone territory. I do not think that anything less will prevent the extinction of another member nation of the Western Defense Alliance. Will any Council member propose such action for a vote?"

There was a pause. Then babblings. It would mean war! It would mean atomic war! Tens or hundreds of millions of human beings would die over a matter affecting less than two hundred thousand! It was ridiculous! Public opinion —

The Council meeting ended with no vote upon the matter. Without even a proposal on which a vote could be taken.

Two days later, Com troops from one of the African Com nations moved in and occupied Sierra Leone. A great many of its citizens were shot, some for opposing the new state of affairs, but some seemingly just on general principles.

III

The *Lotus* went on toward Planet Five, leaving a world which should have been alive and wasn't, to go to a world which should not exist, but did. On the way there was argument which became embittered. In theory, the discoveries made by a Survey ship became automatically available to all the world. But the discovery of

Three in the state it was in would have political results on Earth.

It was — and is — a fact that nobody really believes in death until he sees a dead man. And nobody can believe in the destruction of a planet unless he's seen the corpse or color photographs of it. But that was precisely what the *Lotus* had to carry back to Earth. The WDA nations would see those pictures and read the facts. They would believe in atomic war and the complete sterilization of a world. The Com nations would not see the pictures. They would continue to believe that the West — the WDA — was decadent and enslaved to tyrannical warmongers, and obviously could not resist the splendid armed forces of the Com association. And they wouldn't really believe there could be more than isolated, crazy resistance to their valiant troops. So they'd back their leaders with enthusiasm, and the Western peoples at most would be merely desperate.

The *Lotus* arrived at Planet Four — which by the Lauriac laws should have been similar to Mars. It was almost its twin. It had ice-caps of hoarfrost and its atmosphere was thin and barely contaminated by oxygen. A base could be maintained here, of course, provided one had a source of supply. A base here. incidentally. would have much the value of the Com base on Luna

The *Lotus* did not find that base It found no cities or signs of settlement But it did find a bombcrater. miles across and it seemed miles deep. There was an accumulation of reddish dust at its bottom, trapped from the thin winds that blew over this half-frozen world.

The *Lotus* went on to Planet Five.

The sun, so far out, was very small and its warmth was barely perceptible. But there was vegetation. The surface temperature was above freezing. The Lauriac Laws had predicted that the central metallic core would be small, and the greater part of its mass should be stony. The radioactives in Earth's thin rocky crust produce a constant flow of heat from the interior to the surface. It is considered that it is enough heat to melt a fraction of an inch of ice in a year. On this planet, with a crust many hundreds instead of mere scores of miles thickness, the internal heat was greater. The world was not frozen, and life existed here. It was a pallid, unnatural sort of life which had developed to live in starlight with a feeble assist from a very bright nearby star which happened to be its sun.

There was a base here, too. Kelley located it when he found a resonant return of certain frequencies from the ground. It was not a reflection, but resonance. And so they found the base.

It had been built by engineers the humans on the *Lotus* could only admire. There were gigantic doors which could admit the *Lotus* herself They were rusted shut and had to be opened with explosives There were galleries and tunnels and lab-

oratories. There were missile launchers and missile-storage chambers. There was a giant dome housing a telescope men had not even dreamed of equalling. It was not an optical telescope.

Ultimately they found a mortuary, where the members of the garrison were placed when they died. The *Lotus* was not equipped for the archeological and technological studies the base called for. Its function was to scout out things for especially qualified expeditions to study. And, of course, there was the political situation back on Earth. . .

On the fourth day after landing, the skipper sent for Nolan. The skipper sweated a little.

"Nolan," he said querulously, "we've found something."

"A bug-eyed monster?" asked Nolan dourly.

"No." The skipper mopped his forehead. "Back yonder, on Three, you took a few looks from twenty million miles and figured out what had happened there. We'd have worked it out eventually, but you saw it at once. You're lucky that way. Now we've found something. It's an — instrument. We're short on time. Come with me and make some guesses."

He led the way, explaining jerkily as he went. The thing was in a room by itself, with its own air system and apparently its own food store. It was inside four successive systems of locked doors — all of them inches-thick stainless steel. It was intended that the last door could be opened from inside. It was evidently the very heart of the armed base on Planet Five. Anything sealed up like that would have to be either incredibly valuable or incredibly dangerous.

Nolan followed through the shattered doors, and presently the skipper made a helpless gesture. There was the discovery. It looked more like an old-fashioned telescope than anything else. It had a brass barrel, and it was very solidly mounted, and there were micro-micro adjustments to point it with almost infinite exactitude. It had been sealed in a completely air-tight environment, and what moisture was present had combined with other metals. It wasn't rusted. There was an eyepiece, placed in an improbable position, and there was a trigger. It wasn't like a gun-trigger, but it couldn't have any other purpose. There was no porthole for it to fire through. The compartment in which it had been sealed was deep underground.

Nolan said uneasily:

"It's a weapon, of course."

"Of course!" said the skipper. He mopped his forehead. "I — I think we should take it home. It might make a difference to WDA. But we don't know what it does! It could be a mistake. . ."

Nolan walked around it. He saw that it could be aimed in almost any direction. But not quite. There was a direction that stops prevented it from pointing to. Nolan said:

"What's in that direction?"

The skipper jumped. When Nolan asked the question he began to suspect many answers. He said in a stricken voice, "That's where the missiles were launched—and where the others are stored.

Nolan stared at the thing. It looked hateful. It had the savage feel of a frozen snarl.

"The power-pile?"

The skipper nodded. He mopped his face again,

"Right alongside. We figured they wanted to shield the rest of the base from radioactives."

Nolan said carefully:

"It could be that they wanted to shield the radioactives from something in the base. Maybe something that would act on radioactives is involved." He said painfully, "Men can't change the rate of fission except by building up a critical mass. But maybe—possibly bug-eyed monsters could."

The skipper perspired. He'd have worked out the same thing in the long run, but Nolan saw it right away. He went away and got the ship's engineers. They brought an X-ray for finding flaws in metal. They took pictures of the inwards of the brass-barreled instrument in its place. They traced two separate, incomprehensible circuits. But they were separate.

At long last the skipper nodded permission for Nolan to try the eyepiece. to see what it showed with heavy metal and much soil and vegetation atop it. They taped the trigger so it could not be moved. The controls affecting the eyepiece they left free. The skipper almost dripped sweat as Nolan turned on the eyepiece circuit, peering in.

For a long time he saw nothing whatever. Then a tiny disk moved slowly into the eyepiece's field. It was barely larger than a point. Nolan moved one of the eyepiece controls. The disk enlarged. It enlarged again. A tiny red dot appeared in the center of the field of vision. As the disk enlarged, the red dot grew larger and became a tiny red circle.

Nolan fumbled. He shifted the position of the instrument with a micro-control. He moved the faintly glowing disk until it was enclosed in the red circle. He enlarged. . . Presently the disk was very large, and the red circle ceased to enlarge. It enclosed only a part of the disk.

Nolan felt cold chills down his spine. He swallowed and asked for the angular relationship of Planet Four to Three. The skipper sent someone to find it out. But Nolan had found Planet Four before the answer came. The first disk was in some fashion a representation of Planet Three—the Earthlike world which was dead. The second was a representation of Four. There was a bright spot near the equator of Four — the equator being located by the flattening of the poles. It would be just about where a gigantic atom-bomb crater still existed.

Nolan drew back and took a deep breath.

"Apparently," he said unsteadily, "this eyepiece detects radioactives, coverting something that I can't imagine into visible light after it's passed through a few feet of metal and a good many more of dirt. There's a red ring which makes me think of a gun-sight. And there's a trigger. Skipper, would you send half an ounce or so of ship-fuel out to space in a drone? I think we're going to have to pull this trigger."

The skipper wrung his hands. He went away. And Nolan stood staring at nothing in particular, appalled and sickened by the thoughts that came to him.

Presently the skipper came back and mumbled that a drone was on the way up. Nolan searched for it with the eyepiece. He found it. The sensitivity of the eyepiece was practically beyond belief. What it worked on — what it transmuted and amplified to light—was wholly beyond his imagination.

The drone went four thousand miles out. Nolan absently asked for somebody to be posted out of doors, watching the sky. He got the vivid spark that was the half ounce of ship-fuel in the center of the red luminous ring. He turned his eyes away and pulled the trigger.

There was no sound. There was no vibration. There was no indication in the underground room that anything at all had happened. There was only a violent flare in the eyepiece, from which Nolan had just drawn back.

Someone came shouting from out of doors that there had been an intolerable flash of brilliance in the sky.

A few moments later the word came that the drone control board indicated that the drone had ceased to exist.

The Com Ambassador sighed a little when he saw the expression on the Coordinator's face. Interviews with the titular head of the alliance of all Western nations became increasingly a strain on his politeness. But the Coordinator said grimly:

"I think I can guess what you're here to tell me!"

The Com Ambassador said politely:

"It is painful to — ah — beat around the bush. May I speak plainly?"

"Do," said the Coordinator.

"Our base on the Moon," said the Ambassador with a fine air of frankness, "some time ago reported military preparations on Earth, among the WDA nations. Those preparations could have no purpose other than an unwarned attack upon us. We felt it necessary, then, to take countermeasures of preparation only. We modified the plans for our moon base to have it contain not only the telescopes and such observational equipment, but to have an adequate armament of missiles. It is now so armed."

The Coordinator whitened a little, but he did not look surprised.

"Well?"

"I have to inform you," said the Com Ambassador, "that any military action directed against any Com nation, or its troops, or the Union of Com Republics, will be met by atomic bombardment from the moon as well as — ah — our standard military establishments. This, of course, does not mean war. To the contrary, we hope that it will end the possibility of war. We trust that all causes of tension between our nations will one by one be removed. and that an era of perpetual peace and prosperity will follow."

The Coordinator's lips twisted in an entirely mirthless smile.

"Military action against Com troops," he observed, "means resistance to invasion or occupation, doesn't it?"

"It would be wiser," said the Ambassador carefully, "to protest than to resist. At least, so it seems to me."

The Coordinator of the Western Defense Alliance said:

"Tell me something confidentially, Mr. Ambassador. How long before you expect — no. You wouldn't answer that. Ah! How long do you think it will be before I am shot?"

The Com Ambassador said politely:

"I would hesitate to guess."

The *Lotus* started back to Earth with the enigmatic weapon fastened firmly in its cargo hold. Great pains had been taken to keep it from being knocked or shocked or battered in its transfer to the ship. Firmly anchored, Nolan had insisted that the stops, which prevented it from being aimed below the horizon or toward the radioactives in the base, be adjusted so it could not be aimed at the *Lotus's* own engines or fuel-stores. There were no missiles to worry about, of course.

Even this precaution, however, roused doubt and uneasiness, especially among the scientific staff. It was highly probable that when the *Lotus* reported in from space, the Coms would ask to examine such specimens as she brought back The request would be expressed as scientific interest, but a refusal would be treated as a concealment of dire designs There were those on the ship who felt that the weapon should be dismantled and made to seem meaningless, to avoid any chance of a humiliating squabble with the Coms

The skipper roared at them. It was the only time on the voyage when he displayed anger But he glared at those who proposed the act of discretion. He drove them out of the cabin in which the suggestion was made. He turned to Nolan, who definitely was not a party to it. His manner changed. He said querulously:

"Nolan, why do you want that thing mounted so it could be used if necessary?"

"That's the way it was mounted on Planet Five. To box it or case it might injure it. To take it apart might mean that it could never be got together in working order again."

"Is that the real reason?" demand-

ed the skipper. "It's a good reason, but is it the real one?"

"No," admitted Nolan. "It isn't."

The skipper fumed to himself.

"We might get home," he said fretfully, "and find things just as we left them. Then there'd be no harm in the mounting. We'd at least try to diddle the Coms and get it ashore without their knowing it was important We might get home and find that war'd broken out and Earth was dead like the Third Planet back yonder, only not all yet turned to desert. Then the mounting wouldn't matter. Nothing would! Or we could find that the Coms had smashed the West and were all cockahoop about what they'd managed to do in a sneak attack. So it had better stay mounted. I covered everything, didn't I?"

Nolan wasn't feeling any better than anybody else on the *Lotus*. The jitters that affected everybody but conditioned Coms had been bad when the *Lotus* went about its business. But when the ship headed for home, nerves got visibly worse. They didn't know what they'd find there. With the third planet of Fanuel Alpha in mind, it was all too easy to believe in disaster.

"There's one thing," said Nolan painfully, "that bothers me. I've been trying to think like a Com top brass. The WDA is a well meaning organization, and it's gained time, no doubt. But aside from the Com missiles ninety-five per cent of the atomic warheads on Earth are in the hands of just one WDA nation. It happens to be ours. It's been bearing most of the load of defense costs for the West. It's the richest country in the world. There's practically no poverty in it."

"What has poverty to do with a possible war?" demanded the skipper.

"Everything," Nolan said uncomfortably. "The Coms take over a country. They march in. There are rich people and poor people. The Coms start to humiliate and destroy the rich. The poor people hated them. So the Coms are popular long enough to get things going right. But if they tried that in our country —"

"It wouldn't work," said the skipper. "Not for a minute."

"It wouldn't," agreed Nolan. "Most of our people think of themselves as well to do, and the rest can hope to become so. So the Coms would have to try to govern two hundred million indignant and subversive underground resisters. They couldn't hold down such a country. They wouldn't try!"

The skipper blinked.

"If you mean they'd leave our country alone —"

"I don't," said Nolan. "They'd destroy it. They'd have to. So they might as well destroy it out of hand and destroy most of the fighting potential and a lot of resolution in the West. A well handled atomic-missile bombardment and some luck, and they could take over the rest of the world without trouble. I think that's the practical thing for

them to do. I think they'll do it if they can."

The skipper grimaced. Then he said, almost ashamedly:

"Maybe we're talking nonsense, Nolan. Maybe we've just got bad cases of nerves. Maybe things have gotten better since we left. We could arrive back home and find nobody even dreaming of war any more!"

"That," said Nolan, "would scare me to death. That would be the time to make a sneak attack!"

Which was pessimism. But nothing else seemed justified. It was not even easy to be hopeful about the value of the fifth-planet weapon to the Western Defensive Alliance. The WDA couldn't use it in a preventive war. Their people wouldn't allow it. The initiative would always remain with the Coms.

The *Lotus* moved Earthward. She carried a more deadly instrument for war than men had ever dreamed of. But the ship's company daily jittered a little more violently.

The war might have been fought and be over by now If it had, the Coms would have won it.

The Coordinator for the WDA handed the Com Ambassador his passport

"I'm sorry you've been recalled," he said heavily "Because I think I see the meaning of the move."

"I am only called home for conference and instructions," said the Ambassador politely. "I shall miss our friendly chats. We have had a very fine personal relationship, though we have disagreed so often."

The Coodinator absently shifted objects on his desk. He said suddenly:

"Mr. Ambassador, have I ever lied to you?"

The Ambassador raised his eyebrows. Then he smiled.

"Never!" he said pleasantly. "I have marveled!"

The Coordinator took a quick, sharp breath.

"I shall not lie now," he said abruptly. "I hope you will believe me, Mr. Ambassador, when I tell you one of our best-kept military secrets."

The Ambassador blinked and then shrugged politely.

"You always astonish me," he said mildly.

"Your High Command," said the Coordinator grimly, "has decided not to try to take over the nation around us. It is considered impractical. So this nation is to be destroyed, to shatter the backbone of the WDA and make resistance anywhere else unthinkable."

The Ambassador said reproachfully:

"Ah, but you begin to believe your own propaganda!"

"No," said the Coordinator. "I have simply told you the facts you undoubtedly already know. Now I tell you our best-kept military secret. We know that we cannot deal with you. We know that you might be successful in an overwhelming, unwarned attack. We know that if you decide upon war, it will be directed

primarily at this nation. So we have set up some very special atomic bombs where it is extremely unlikely that you will find them. They are 'dirty' bombs. They are designed to make the maximum possible amount of radioactive dust — of fallout. Timing mechanisms are set to detonate them. Every day a man goes and sets back the timing mechanism in each place where a bomb is established. On the day that a man fails to do so the bombs will certainly explode."

The Coodinator said almost briskly:

"We calculate that the bombs will make the atmosphere of the whole Earth lethally radioactive. They will raise the background count on Earth to the point where nothing can live; no plant, no animal, no fish in any sea. This will only happen if this nation is destroyed. It will fight if it is attacked, of course, but your chances of substantial success are good. But if you are successful the Earth will die. I may add that the people of the Com nations will die also, to the last individual."

The Ambassador started to his feet.

"But you could not do that!" he protested white-lipped. "You cannot!"

The Coordinator shrugged and shook his head.

"I have not lied to you before, Mr. Ambassador. I do not lie to you now." Then he said formally: "I hope you have a pleasant journey home."

IV

The *Lotus* came out of the usual sequence of arrival-hops no more than six light-seconds from Earth. A million miles, more or less; perhaps four times the distance of the Moon. Nolan examined the planet's sunlit face and said steadily:

"Nothing's happened yet."

There was almost agonized relief. Only the skipper did not seem to relax. He went stolidly to the control-room and got out the scrambler card that matched just one other scrambler card in the world. He put it in the communicator. To speak to Earth by scrambler would be an offense. It would be protested by the Coms. They would insist that a survey ship should have nothing secret to report and that anything secret must be inimical to the Com Association of Nations.

The skipper formally reported in, in the clear, and then insisted on completing his report by scrambler. He did complete it, over the agitated protest of the ground. Then there was silence. He mopped his forehead.

"Nolan, better get down to the eyepiece. The Coms could send something up to blast us. I'll get the detectors out. You be ready! You're sure you can handle things?"

"This is a little bit late to raise the question," said Nolan. "I think I can do it, though."

He went down into the hold. He turned on the eyepiece. He saw the distinct, luminous disk which was

Earth in the not-at-all-believable field of the impossible instrument. He saw points — not dots — of extremely vivid light. Obviously the size of a radioactive object did not determine the brightness of its report to the weapon from Planet Five of Fanuel Alpha. Something else controlled the brilliance.

He saw the groupings of many dimensionless points of light. There were the patterns which meant the silos holding the monster atomic missiles of the West. He could distinguish them from the much more concentrated firing-points of the Com nations. The oceans had few or no bright points at all. There were only so many atomic-powered ocean-going vessels. Nolan could tell well enough which were the Western accumulations of radioactives for defense purposes, and which were the Com stores of warheads.

His throat went dry as he realized the power in his hands. Neither he or anyone else could make one blade of grass grow, but he could turn the third planet of this sun into a desert and a dreariness like the third planet of another sun far, far away.

The skipper came into the hold. He locked the entrance door behind him.

"I got to the Coordinator," he said in a shaking voice. "I started enough trouble by reporting by scrambler. He talked to me. I showed him pictures. He's telling the Coms most of what I reported, saying that if they like they can try to blast us. If they try, and don't succeed, we can try to figure out what to do next."

The Com premiership was in some ways the equivalent of the office of Coordinator of the Western Defense Alliance. But the men who held the two posts were quite unlike and the amount of authority they could exercise was vastly different. The Com premier read, again, the newly arrived message from the Coordinator. The high officials he'd sent for came streaming into the room. Most of them had flimsies of the message in their hands. The Premier beamed at them.

"You have the news," he said humorously. "The WDA Coordinator first threatened to make all Earth's air radioactive if we attacked the — ah — leading member of the WDA and destroyed it. He has evidently decided that this threat is not strong enough. So he assures us that a Western survey ship has come back from an exploring voyage with a cargo of artifacts from a non-human civilization. Among the artifacts there is what he says is the absolute weapon. He says that the skipper who has brought it back claims that it can end the tension between the WDA and us — by ending us!" The Premier chuckled. "He invites us to verify the skipper's claim by attempting to blast the survey ship, whose coodinates of position he gives us. I think he has made a rather substantial error of judgment."

His eyes twinkled as he looked from one to another of the high officials he had summoned.

"We accepted the invitation," said the Premier. "Naturally! General?"

He looked at a tall general officer with twin silver rockets in his lapels. The general said proudly:

"Yes, Excellency! Our space-radar located an object at the survey ship's stated position. We sent six rockets with atomic warheads at it. We used satellite-placing rockets for maximum acceleration. They are well on their way now. Of course they can he disarmed or destroyed as well as maneuvered to intercept this survey ship if it attempts to flee. They will reach the target area in just under three hours."

The Premier nodded, very humorously.

"Since we accepted their invitation. naturally the Western staff concludes that we are disturhed. That we will wait to see what our rockets learn. It would he interesting. hut our scientists tell me that the alleged weapon is impossihle. Utterly impossihle! So it is merely a trick.. And we will not wait for our rockets to arrive. We might he late for our dinners, and we would not like that!"

The high officials made sounds of amusement

"So we put our own ending to the comedv." said the Premier blandly "The circuits are joined?" He asked the question of a craggy-faced service-of-supply colonel The colonel managed to nod. and was stricken numh hy the importance of the gesture.

"Then," said the Premier humorously, "we will destroy our enemy."

He waddled across the room. He put a pudgy forefinger on a button. He pushed it.

Even here, deep underground, there were roaring sounds as rockets took off for the west. All over the Com nations, carefully distrihuted rocket-firing sites received signals from the one pushhutton. They sent hellowing monsters up into the sky.

Three Com rockets reached their targets, and Nolan never quite forgave himself for it. They were murderous They wiped out cities. But that was all. The rest of the rockets went off prematurely. A spread of half a hundred, crossing the North Pole, detonated just out of atmosphere. Others went off over the Atlantic. Not a few made temporary suns above the Pacific. Nolan brought moving specks within the thin red circle of his instrument. and pulled the trigger The points flamed momentarily and left patches of luminosity hehind them. And that was that

But they continued to rise On Earth they made noises like dragons There was panic from their starting points. Those first out had not reached their targets! So the Com launching-sites flung more and more missiles skyward. One of them reached a city of the West. A second A third.

The only possihle answer was to

blast them as they rose. Then to blast them before they rose. Nolan's task became the terribly necessary one of preventing radioactives from moving away from Com territory and into WDA nations — specifically one WDA nation. He did not think of the consequences of his actions except in terms of preventing excessively bright mathematical points of light from getting to the areas where there were so many fewer points of similar light which did not move at all. He tried to stop only those that moved.

But three got by him, and he could do nothing but detonate all the radioactives in Com territory. He had to! When that was done, there were six warheads coming up from Earth. He detonated them. There were massed warheads moving toward Earth from the Moon. It seemed that they practically tore space apart that they went off together. Then the moon base began to fire rockets, hysterically, at the *Lotus*, and it was necessary to detonate the radioactives in the moon base.

It had been estimated that an atomic war might be over in three hours. But prophecies are usually underestimates. Between the first and last explosions on Earth, in space and on the moon — there was a truly gigantic crater where the Com base had been — some thirty-seven minutes elapsed. Then the war was over.

There were some survivors in Com territory, of course. But they couldn't retaliate for the destruction of their nations. Their own bombs had done the destruction. They couldn't even gloat that the rest of Earth shared their catastrophe. It didn't. Most of the bombs exploded high, and over ocean. No less than three-fifths of all fallout landed in the sea and sank immediately. For the rest, the background count on Earth nowhere went above 4.9, and people could be protected against that.

The survey ship *Lotus* came gingerly down to ground. There was no longer any reason for tension. Its crew reported in and scattered to the various places they called home. They were very glad to be back. In the course of time they were all suitably bemedalled and admired and told that their names would live forever. Of course, it was not true.

Nolan didn't pay much attention to this. He left the Survey. He went to live in a small town. He married a small-town girl. And he never, never, never took any one of the excursions so many WDA people took to see the result of atomic explosions in Com territory. when their attempt to murder one Western nation backfired. Nolan had caused that backfiring. He very passionately did not want to see its results.

He'd seen all he wanted of that sort of thing on the third planet of a sol-type sun, some light-centuries from Earth. END

HEAVENLY GIFTS

BY AARON L. KOLOM

Heartfelt prayers deserve an answer — but it may be in a peculiar way!

A blur of silent motion tugged suddenly at the corner of Mrs. Frisbee's eye. She looked up from her knitting. An electric blanket, deep blue with satiny edges, was materializing, neatly folded, in the center of her tiny kitchen table.

She closed her eyes briefly for a silent prayer of thanks. At midnight she would send out those thanks, followed by a request for a bicycle for the paper boy.

Contentedly she raised herself from her chair. She weighed mentally whether there was time to wrap the blanket as a gift before she had to leave for work. She decided against it. It wasn't as if it were an anniversary or birthday present It was just something she knew her nice landlady, Mrs. Upjohn, needed but couldn't afford.

Mrs. Upjohn was in her room. With an embarrassed dismissal of thanks Mrs. Frisbee presented the blanket to her, then hurried to catch the bus at the corner.

The corridor clock showed a few minutes to midnight as Mrs Frisbee, carrying her mop and pail. entered the control room At the slight noise Dr. Morrow looked up from his paper-littered desk. A vague smile and wave were directed generally in her direction. With a glance at his watch he sighed and returned to his work. Mrs. Frisbee waited patiently and quietly A few minutes later Dr. Morrow looked up again, then yawned and stretched luxuriously.

"Time for lunch, I guess." He stood up, setting a few dials on the glistening control panel before him. "See you in forty-five minutes." he called cheerily

With the sound of his heels echoing down the hall. Mrs. Frisbee gingerly sat down in his chair. Taking a sheet of paper from her apron, she meticulously marked down the dial settings, exactly as he had left them.

Except for the diminishing sound of footsteps, the laboratory building was silent, with the unique quiet of a deserted structure. Through the window she could see the gigantic antenna aiming toward the stars. As always she experienced a momentary thrill of combined excitement and reverential awe.

She waited till she heard the closing of the front door of the building. Then with practiced fingers she flicked some switches The equip-

ment hummed quietly. She swung toward the keyboard and began picking out letters with her forefingers. Finally she took a page from a mail-order catalogue from her purse and slowly typed out the catalogue numbers. She didn't hurry. Dr. Morrow would now be finishing his lunch in his car. Afterwards he would take a stroll around the laboratory grounds. He was a man of regular, dependable habit.

It had all begun one evening about five months before, when Mrs. Frisbee had attended a revivalist meeting. Simple soul that she was, with her increasing years and the passing of many of her friends, Mrs. Frisbee had begun to experience a desire to make peace with her maker.

"You are all sinners," the preacher hand thundered, "and you need the most powerful voice in the world to speak for you!"

It made quite an impression!

It seemed the hand of providence when Mrs. Frisbee learned that a newly completed astronomical-radio station was seeking janitorial personnel She quickly applied and was hired.

It was at first only a vague germ of an idea. Slowly the idea crystallized as she inquired of the technicians just how it was operated

It wasn't really difficult, she learned. An electronic typewriter was used, converting letters and words into mathematical language, then automatically beaming the data out into the vastness of space. It took time, but she even learned what dials and switches to operate so there would be no record of her messages.

The station had been established to try to contact intelligences on other planets or star systems. An idiotic waste, the critics complained. Mrs. Frisbee agreed. Except for occasional space static nothing had ever been received. Mrs. Frisbee knew this from hearing the men talk. Still they kept trying, constantly listening, and at regular intervals transmitting basic mathematics, recognizable by any civilization.

She had arranged her work so that her midnight break came when she was cleaning the control room. There was only a single scientist on night duty, currently Dr. Morrow, who left the equipment on automatic reception while on his lunch break. Mrs. Frisbee never needed but half the time he was gone.

Her first prayer had been a brief one. Gripped with religious fervor Mrs. Frisbee had typed awkwardly, one finger at a time. The whirring of the equipment as it transmitted her words of devotion out to the farthest reaches of space was as balm to her soul.

It was a month later that she decided to test her contact with the divine with a simple request, an apron she had seen in a catalogue. It would be an ideal birthday present for Mrs. Upjohn, she thought. Days and weeks passed and Mrs. Frisbee had almost lost faith, when suddenly one evening, as she was quietly sew-

ing, the apron appeared, bright and gay on her small table. She rubbed her eyes. It was truly wondrous. The thanks she gave in that evening's message were profuse.

As time passed she asked for other items from the catalogue for gifts for other friends. All were delivered miraculously after a few days.

Mrs. Frisbee was at peace — with the world, with herself, and with her maker. Her simple life was full. She had a proven faith, with miracles occurring as she desired them. There was no end to the people she met who needed things, and seemingly no difficulty in having her requests fulfilled. Quite often she was tempted to explain it all to her good friend. Mrs. Upjohn. But something always kept her from telling, a feeling that it might be sacrilegious somehow to discuss it.

Only one thing occasionally puzzled Mrs. Frisbee. Though she always ordered the presents from the mail-order catalogue. they seemed superior in quality and workmanship to any purchased articles . . .

The barracks-room language coming from General Collin's office caused his aide to raise his eyebrows. He hadn't heard the General use such terms since Korea.

General Collin was even more incredulous than the colonel, the major and the captain had been before him, as each was told.

"It's impossible," he exploded into the telephone. "When did you blankety idiots first discover it?" After a brief pause he barked, "Double the guard!" A moment later he barked again, "Damn it, then triple it!"

He sat back stunned. What would the chief say? He shuddered at the thought.

His eyes narrowed reflectively, and after a moment he reached again for the phone.

"Have you contacted any other bases?" His voice was now quiet and low. After a brief pause he added, "Come to my office as soon as possible with everything you have on the situation."

He steeled himself for the next call, reluctantly reaching for the special red telephone. His orderly mind presented the facts he had learned as clearly as possible.

"I don't know," he answered a question. "No sir, I haven't contacted AEC or State yet. I'd like to check on it further." Then finally, "Complete secrecy, yes, sir. I'm making a thorough security check."

An undercurrent of frantic excitement quickly engulfed Washington's top councils, involving even the President. The National Security Council and Chiefs of Staff were called into emergency session. Grim-visaged star-shouldered officers hurried through Pentagon corridors. Newsmen knew only that something quite serious was taking place, something that vitally affected the national security. Whispers of a "secret Russian weapon" began to be heard From the Pentagon, orders

went out to every military base. CIA agents and military scientists were hurriedly called, were asked enigmatic questions and were given grim instructions.

A few days later, a call came again to General Collin. He had half-expected it. He reached again for the red phone.

"It's happened again!" He bit off his words in his exasperation. "Yes! Right in front of a television monitor. The film is being rushed to Washington." He listened a moment, then nodded. "That's right, just disappeared! Completely dematerialized!"

He received a bit of a shock in turn. "Two other bases also? Good God!" Then, "Yes, sir, I'll fly in tonight."

At the top level meeting the next morning the Under-Secretary of State interrupted the discussion. "We have just received a peculiar message from the British Embassy," he said. "They are asking about the security of —" He lowered his voice even though the room was soundproof.

Everyone about the table looked soberly at each other.

Security Council meetings became continuous around-the-clock sessions The top civilian scientists of the country were brought in and the situation explained to them As one they shook their heads

A Nobel prize winner in Physics put it flatly. "It is beyond our comprehension. far beyond the state of our knowledge!"

Central intelligence reported daily on the political and scientific activities in key spots of the world. A spurt of high-level meetings in Moscow was noticed and duly reported.

This ominous news was received with a depression bordering on hysteria.

"We have underestimated their technological advancement again," said the Chairman of the Joint Chiefs of Staff. "We must increase our production efforts. We must solve this puzzle—" he spoke slowly. in measured tones of the utmost gravity — "even at the expense of all other research efforts! This must have the highest possible priority!"

Orders to this effect were quickly issued.

"I don't understand the Soviet mind," puzzled the Secretary of State. "At the diplomatic level they are seemingly going farther than ever before in making concessions and overtures toward peace!"

"And while they try to lull us politically," fumed the Secretary of Defense, "they are leaving us practically defenseless with their scientific thievery!"

He slammed the table with his fist. "We must be on our guard! We must increase our research efforts! And SAC must be placed on an emergency alert, ready for instant retaliation!"

And each day, despite the frenzied increase in mining and refining activity, a report on the dwindling

military capabilities of the United States was given the President. The day finally arrived when he gravely addressed the Security Council.

"As of today," the President said, "we are unable adequately to defend our country! Our production capabilities cannot keep up with what we are losing. We are left only with our conventional weapons." He paused "God help us, we are at their mercy!"

A worried-looking Under-Secretary rushed into the Council chamber and whispered something into the President's ear The President's face grew white He rose slowly

"Gentlemen." His quiet voice reflected a rigid control "Mr Khrushchev is placing a personal call to me on a matter, which he says. is of the utmost urgency." He paused. "Please wait until I return."

The group of men, carrying on their shoulders the responsibility of the defense of the United States of America and all the free world, sat in quiet dejection, heads bowed. Long minutes passed. No one felt up to meeting the eyes of anyone else about the table.

As the President re-entered the chamber, the members of the Security Council rose. The atmosphere was heavy with foreboding.

He spoke slowly and clearly, his face expressionless. "Mr Khrushchev says he desires to establish a true peace with us He will agree to all our terms: complete inspection, atomic test ban, disarmament, anything of a reasonable nature!"

He looked around the shocked room. Relief, puzzlement, suspicion, were mirrored on various faces.

"I'm sure I don't understand all this." the President continued. "I doubt if any of you do. But if the Soviet Union is sincere in desiring a true peace — !" His voice became very quiet. "We shall certainly meet them halfway!"

Veux looked up from the account book with a grunt of approval, then reached for the drink his partner held out.

"Well," Tai said. "Didn't I tell you business would be g o o d this period?"

Veux nodded and downed his drink. "Excellent, but I see that most of our profit came from native trade!" His eyes narrowed. "It looks illegal! Are you supplying arms for a revolution somewhere?"

Tai's smile became contemptuous. "No, it's just local products, native trivia. We drop-chuted survey robots, then called them back and installed a delivery system. The robot picks up samples by dematerialization and I synthesize them."

"But so much profit! Aren't there any complaints?"

Tai laughed. "On the contrary I get thanked after each delivery, plus a request for something else. Natives are the same everywhere. Just suckers, waiting to be trimmed!"

"I don't want to get into any trouble over this!" Veux looked dubious.

Tai refilled the glasses. "Well, our

business charter says we must fill and deliver any legitimate order we get!"

"If it's legitimate!" Veux studied the deep ruby of his drink. "Which of our colonies is it?"

Tai hesitated slightly. "It's not one of our colonies. The orders are from subsystem CQ!"

"What!" Veux's eyes flashed. "You know we're not supposed to have any contact at all with them! They're under official observation!"

"Don't worry, don't worry." Tai's voice exuded confidence. "No one can prove we've broken a single law."

"I don't understand."

Tai's expression was one of exaggerated innocence. "Everything is automatic. Radio orders for goods are received, translated and filled, with robot delivery." He winked at his partner. "How can anyone prove I ever bothered to check the source?"

"But the profit? What do you trade?"

"Aha! I was waiting for you to ask that. I set the robot to detect and take a unit of energy metal each trip!"

"Energy metal?" Veux jerked upright.

"Yes, but they're running out." Tai sighed. "The robot reports he has had to go clear to the other side of the planet to fill his quota. There's only enough scattered around for a few more trips!"

"I guess we can't complain," Veux said.

They clinked their glasses.

END

In Our Next Issue . . .

Keith Laumer, who has been coming up with uncommonly good stories at an uncommonly rapid clip, will be back with a lead novelette, Laumer's characters are the shrewdest rascals of the galaxy, and the Earthman who has to cope with them finds himself involved in some fast and funny adventures. The title is: *The Star-Sent Knaves*. You'll like it.

Also in the next issue . . . well, let's see: Mack Reynolds, for one, with a novelette called *Spaceman on a Spree*. For another favorite writer, there's Damon Knight (and by the way, have you read his magnificent short novel, *The Visitor at The Zoo*, in the current *Galaxy*?) There'll be others, too, of course — including the conclusion of Arthur C Clarke's *People of the Sea*. Don't miss the June *Worlds of Tomorrow*.

THE GIRL IN HIS MIND

By ROBERT F. YOUNG

Every man's mind is a universe with countless places in which he can hide — even from himself!

I

The dance that the chocoletto girl was performing was an expurgated version of the kylee sex ritual which the Louave maidens of Dubhe 7 practiced on the eve of their betrothal. Expurgated or not, however, it was still on the lascivious side. The G-string that constituted the chocoletto girl's entire costume put her but one degree above the nakedness which the original dance demanded. Nathan Blake's voice was slightly thick when he summoned the waiter who was hovering in the shadows at the back of the room. "Is she free?" he asked.

"I do not know, mensakin. Perhaps."

Blake resumed watching. The girl's movements were a delicate blend of love and lust. Her face accompanied her body, eyes half-

lidded one moment to match the languid motion of her limbs, wide and feral the next to match the furious bump and grind of her hips. For a chocoletto she was light-skinned — more bronze, really, than brown. But then, the word "chocoletto", coined by the early beche-la-mer traders, was misleading, and few of the natives of Dubhe 4's southernmost continent lived up to it completely.

She was beautiful too. Her high-cheekboned face was striking — the eyes dark-brown and wide-apart, the mouth sensuous, the teeth showing in a vivid white line between the half-parted purple lips. And her body was splendid. Blake had never seen anyone quite like her.

He beckoned to her when the dance was over and, after slipping into a white thigh-length tunic, she joined him at his table. She ordered Martian wine in a liquid voice, and sipped it with a finesse that belied her cannibalistic forebears. "You wish a night?" she asked.

Blake nodded. "If you are free."

"Three thousand quandoes."

He did not haggle, but counted out the amount and handed it to her. She slipped the bills into a thigh sheath-purse, told him her hut number and stood up to leave. "I will meet you there in an hour," she said.

Her hut was as good a place to wait for her as any. After buying a bottle of native whiskey at the bar, Blake went out into the Dubhe 4 night and made his way through the labyrinthine alleys of the native sector. In common with all chocoletto huts, Eldoria's was uncared for on the outside, and gave a false impression of poverty. He expected to find the usual hanger-on waiting in the anteroom, and looked forward to booting him out into the alley. Instead he found a young girl —

A human girl.

He paused in the doorway. The girl was sitting cross-legged on a small mat, a book open on her lap. Xenophon's *Anabasis*. Her hair made him think of the copper-colored sunrises of Norma 9 and her eyes reminded him of the blue tarns of Fornax 6. "Come in," she said.

After closing the door, he sat down opposite her on the guest mat. Behind her, a gaudy arras hid the hut's other room. "You are here to wait for Eldoria?" she asked.

Blake nodded. "And you?"

She laughed. "I am here because I live here," she said.

He tried to assimilate the information, but could not. Perceiving his difficulty, the girl went on, "My parents indentured themselves to the Great Starway Cartel and were assigned to the rubber plantations of Dubhe 4. They died of yellow-water dysentery before their indenture ran out, and in accordance with Interstellar Law I was auctioned off along with the rest of their possessions. Eldoria bought me."

Five years as a roving psycheye had hardened Blake to commercial colonization practices; nevertheless,

he found the present example of man's inhumanity to man sickening.

"How old are you?" Blake asked.

"Fourteen."

"And what are you going to be when you grow up?"

"Probably I shall be a psychiatrist. Eldoria is sending me to the mission school now, and afterward she is going to put me through an institute of higher learning. And when I come of age, she is going to give me my freedom."

"I see," Blake said. He indicated the book on her lap. "Homework?"

She shook her head. "In addition to my courses at the mission school, I am studying the humanities."

"Xenophon," Blake said. "And I suppose Plato too."

"And Homer and Virgil and Aeschylus and Euripides and all the rest of them. When I grow up I shall be a most well-educated person."

"I'm sure you will be," Blake said, looking at the arras.

"My name is Deirdre."

"Nathan," Blake said. "Nathan Blake."

"Eldoria will be arriving soon. I must go and prepare her dais."

She got up, parted the arras, and slipped into the next room. Shame flamed in Blake's cheeks, and for a moment he considered leaving; then he remembered Eldoria's dance, and he went right on sitting where he was.

Presently the girl returned, and not long afterward the cloying scent of native incense crept beneath the arras and permeated the anteroom. She sat sideways on the mat this time, and he caught her face in profile. There was a suggestion of saintliness in the line of the nose and chin, a suggestion made all the more poignant by the slender column of the neck. He shifted uncomfortably on the guest mat. She had taken up the *Anabasis* again, and silence was pounding silent fists upon the walls.

He was relieved when Eldoria finally arrived. She ushered him into the next room immediately. It was slightly larger than the anteroom, and much more richly appointed. A thick carpet the color of Martian waterways lay upon the floor, contrasting pleasantly with the golden tapestries that adorned all four walls. The sleeping dais was oval and took up nearly half the floor space. It was strewn with scarlet cushions.

Blake sat down upon it. Nervously he watched Eldoria slip out of her white street robe, his eyes moving back and forth from her smooth dark skin to the arras. The incense thickened around him.

She noticed the back-and-forth movement of his eyes. "You need not fear the little one," she said, laying her hand upon his knee. "She will not enter."

"It's not that so much," Blake said.

"What?" The warm bronze shoulder was touching his. . .

He rose up once in the night, thinking to find his hotel bed. His next awakening was in the grayness of dawn, and he got up and dressed

and moved silently to the doorway. The girl slept just without the arras on a thin sleeping-mat, and he had to step over her to gain the anteroom. In sleep, a strand of her copper-colored hair had tumbled down across her forehead and lay like a lovely flower upon the virginal whiteness of her skin. There was something saintly about her quiet face.

When he reached the alley he began to run, and he did not stop running till the chocoletto sector was far behind him.

The hill was a memory-image and Aldebaran 12 rain-country hills were notoriously steep. Blake was breathing hard when he reached the crest.

Before him lay a memory-image of a section of Deneb 1 wasteland. The image extended for no more than half a mile, but Blake was annoyed that he should have remembered even that much of the wretched terrain. Ideally, a man's mind-country should have been comprised only of the places and times he wanted to remember. Practically, however, that was far from being the case.

He glanced back down into the rain-pocked valley that he had just crossed. The rain and the mist made for poor visibility. He could only faintly distinguish the three figures of his pursuers. The trio seemed a little closer now.

Ever since he had first set foot into his mind, some ten hours ago, they had been on his trail, but for some reason he had been unable to bring himself to go back and find out who they were and what they wanted. Hence he was as vexed with himself as he was with them.

After resting for a few minutes, he descended the hill and started across the Deneb 1 wasteland. It was a remarkably detailed materialization, and his quarry's footprints stood out clearly in the duplicated sand.

Sabrina York did not even know the rudiments of the art of throwing off a mind-tracker. It would have done her but little good if she had, for twelve years as a psycheye had taught Blake all the tricks. Probably she had taken it for granted that the mere act of hiding out in her tracker's mind was in itself a sufficient guarantee of her safety. After all, she had no way of knowing that he had discovered her presence.

Mind-country was as temporally inconsecutive as it was topographically incongruous, so Blake was not surprised when the Deneb 1 wasteland gave way to an expanse of boyhood meadow. Near the meadow was the house where Blake had lived at a much later date. In reality, the places were as far apart in miles as they were in years, but here in the country of his mind they existed side by side, surrounded by heterogeneous landscapes from all over the civilized sector of the galaxy and by the sharply demarcated spectra of a hundred different suns. A few of the suns were in the patchwork sky

— Sirius, for example, and its twinkling dwarf companion. Most of them, however, were present only in their remembered radiance. To add to the confusion, scattered night memories interrupted the hodgepodge horizon with columns of darkness, and here and there the gray column of a dawn or dusk memory showed.

The house was flanked on one side by a section of a New Earth spaceport and on the other by an excerpt of an Ex-earth city-block. Behind it flowed a brief blue stretch of Martian waterway.

Sabrina's footsteps led up to the front door, and the door itself was ajar. Perhaps she was still inside. Perhaps she was watching him even now through one of the remembered windows. He scanned them with a professional eye, but saw no sign of her.

Warily he stepped inside, adjusting the temperature of his all-weather jacket to the remembered air-conditioning. His father was sitting in the living room, smoking, and watching 3V. He had no awareness of Blake. At Blake's entry he went right on smoking and watching as though the door had neither opened nor closed. He would go right on smoking and watching till Blake died and the conglomeration of place-times that constituted Blake's mind-world ceased to be. Ironically, he was watching nothing. The 3V program that had been in progress at the time of the unconscious materialization had failed to come through.

The memory was a treasured one —the old man had perished in a 'copter crash several years ago — and for a long while Blake did not move. He had never been in his own mind before. Consequently he was more affected that he might otherwise have been. Finally, stirring himself, he walked out into the kitchen. On a shelf above the sink stood a gaily colored box of his mother's favorite detergent with a full-length drawing of Vera Velvetskin, the company's blond and chic visual symbol, on the front. His mother was standing before the huge automatic range, preparing a meal she had served twenty-three years ago. He regarded her with moist eyes. She had died a dozen years before his father, but the wound that her death had caused had never healed. He wanted to go up behind her and touch her shoulder and say, "What's for supper, mom?" but he knew it would do no good. For her he had no reality, not only because he was far in her future, but because in his mind-world she was a mortal and he, a god — a picayune god, perhaps, but a real one.

As he was about to turn away, the name-plate on the range caught his eye, and thinking that he had read the two words wrong, he stepped closer so that he could see them more clearly. No, he had made no mistake: the first word was "Sabrina", and the second was "York".

He stepped back. Odd that a kitchen range should have the same

name as his quarry. But perhaps not unduly so. Giving appliances human names had been common practice for centuries. Even a name like "Sabria York", while certainly not run-of-the-mill, was bound to be duplicated in real life. Nevertheless a feeling of uneasiness accompanied him when he left the kitchen and climbed the stairs to the second floor.

He went through each room systematically, but saw no sign of Sabrina York. He lingered for some time in his own room, wistfully watching his fifteen-year-old self lolling on the bed with a dog-eared copy of *The Galaxy Boys and the Secret of the Crab Nebula*, then he stepped back out into the hall and started to descend the stairs.

At the head of the stairs a narrow window looked out over the front yard and thence out over the meadow He glanced absently through the panes, and came to an abrupt halt. His three pursuers were wading through the long meadow grass less than a quarter of a mile away — not close enough as yet for him to be able to make out their faces, but close enough for him to be able to see that two of them were wearing dresses and that the third had on a blue skirt and blouse, and a kepi to match. He gasped. It simply hadn't occurred to him that his pursuers might be women. To his consternation he discovered that he was even more loath to go back and accost them than he had been before. He actually had an impulse to flee.

He controlled it and descended the stairs with exaggerated slowness, leaving the house by way of the back door. He picked up Sabrina's trail in the back yard and followed it down to the Martian waterway and thence along the bank to where the waterway ended and a campus began. Not the campus of the university which he had visited two days ago to attend his protegee's graduation. It was not a placetime that he cared to revisit, nor a moment that he cared to relive, but Sabrina's trail led straight across the artificially stunted grass toward the little bench where he and Deirdre Eldoria had come to talk after the ceremony was over. He had no choice.

The bench stood beneath a towering American elm whose feathery branches traced green arabesques against the blue June sky. A set of footprints slightly deeper than its predecessors indicated that Sabrina had paused by the trunk. Despite himself Blake paused there too. Pain tightened his throat when he looked at Deirdre's delicate profile and copper-colored hair, intensified when he lowered his eyes to the remembered blueness of her graduation dress. The diamond brooch that he had given her as a graduation present, and which she had proudly pinned upon her bodice for the whole wide world to see, made him want to cry. His self-image of two weeks ago shocked him. There were lines on the face

that did not as yet exist, and the brown hair was shot with streaks of gray that had yet to come into being. Lord, he must have been feeling old to have pictured himself like that!

Deirdre was speaking. "Yes," she was saying, "at nine o'clock. And I should very much like for you to come."

Blake Past shook his head. "Proms aren't for parents. You know that as well as I do. That young man you were talking with a few minutes ago — he's the one who should take you. He'd give his right arm for the chance."

"I'll thank you not to imply that you're my father. One would think from the way you talk that you are centuries old!"

"I'm thirty-eight," Blake Past said, "and while I may not be your father, I'm certainly old enough to be. That young man —"

A pink flush of anger climbed into Deirdre Eldoria's girlish cheeks. "What right has *he* got to take me! Did *he* scrimp and go without in order to put me through high school and college? Has *he* booked passage for me to New Earth and paid my tuition to Trevor University?"

"Please," Blake Past said, desperation deepening his voice. "You're only making everything worse. After majoring in Trevorism, you certainly ought to realize by now that there was nothing noble about my buying you after Eldoria died. I only did it to ease my conscience—"

"What do *you* know about conscience?" Deirdre demanded. "Conscience is a much more complex mechanism than most laymen realize. Guilt feelings aren't reliable criteria. They can stem from false causes — from ridiculous things like a person's inability to accept himself for what he is." Abruptly she dropped the subject. "Don't you realize, Nate," she went on a little desperately, "that I'm leaving tomorrow and that we won't see each other again for years and years?"

"I'll come to New Earth to visit you," Blake said. "Venus is only a few days distant on the new ships."

She stood up. "You won't come — I know you won't." She stamped her foot. "And you won't come to the prom either. I know that too. I knew it all along. Sometimes I'm tempted to —" Abruptly she broke off. "Very well then," she went on, "I'll say good-by now then."

Blake Past stood up too. "No, not yet. I'll walk back to the sorority house with you."

She tossed her head, but the sadness in her tarn-blue eyes belied her hauteur. "If you wish," she said.

Blake Present watched them set out side by side toward the remembered halls of learning that showed in the distance. There had been other people present on the campus that afternoon, but as they had failed to register on Blake Past's mind, they did not exist for Blake Present. All that existed for Blake Present were the diminishing figures of the girl and the man, and the

pain that was constricting his throat.

Wretchedly he turned away. As he did so he saw the three shadows lying at his feet and knew that his pursuers had at last caught up to him.

His first reaction when he faced them was amazement. His next reaction was shock. His third was fear.

His amazement resulted from recognition. One of the three women arrayed before him was Miss Stoddart, his boyhood Sunday-school teacher. Standing next to her in a familiar blue uniform was Officer Finch, the police woman who had maintained law and order in the collective elementary school he had attended. Standing next to Officer Finch was blond and chic Vera Velvetskin, whose picture he had seen on box after countless box of his mother's favorite detergent.

His shock resulted from the expressions on the three faces. Neither Miss Stoddard nor Officer Finch ever particularly liked him, but they had never particularly disliked him either. This Miss Stoddart and this Officer Finch disliked him, though. They hated him. They hated him so much that their hatred had thinned out their faces and darkened their eyes. More shocking yet, Vera Velvetskin, who had never existed save in some copywriter's mind, hated him too. In fact, judging from the greater thinness of her face and the more pronounced darkness of her eyes, she hated him even more than Miss Stoddart and Officer Finch did.

His fear resulted from the realization that his mind-world contained phenomena it had no right to contain — not if he was nearly as well-adjusted as he considered himself to be. The three women standing before him definitely were not memory-images. They were too vivid, for one thing. For another, they were aware of him. What were they, then? And what were they doing in his mind?

He asked the two questions aloud.

Three arms were raised and three forefingers were pointed accusingly at his chest. Three pairs of eyes burned darkly. "You ask us that?" Miss Stoddart said. "Callous creature who did a maiden's innocence affront!" said Officer Finch. "And sought sanctuary in ill-fitting robes of righteousness!" said Vera Velvetskin. The three faces moved together, blurred and seemed to blend into one. The three voices were raised in unison: "You know who we are, Nathan Blake. *You* know who we are!"

Blake stared at them openmouthed. Then he turned and fled.

III

It had taken man a long time to discover that he was a god in his own right and that he too was capable of creating universes. Trivial universes, to be sure, when compared with the grandeur and scope of the objective one, and peopled with ghosts instead of human beings; but universes nonetheless.

The discovery came about quite by accident. After projecting himself

into a patient's memory one day, a psychologist named Trevor suddenly found himself clinging to the slope of a traumatically distorted mountain. His patient was beside him.

The mountain proved to be an unconscious memory-image out of the patient's boyhood, and its country proved to be the country of the patient's mind. After many trials and errors, Trevor managed to get both himself and his patient back to the objective world, and not long afterward he was able to duplicate the feat on another case.

The next logical step was to enter his own mind, and this he also succeeded in doing.

It was inevitable that Trevor should write a book about his discovery and set about founding a new school of psychology. It was equally inevitable that he should acquire enemies as well as disciples. However, as the years passed and the new therapy which he devised cured more and more psychoses, the ranks of his disciples swelled and those of his enemies shrank. When, shortly before his death, he published a paper explaining how anyone could enter his or her own mind-world at will, his niche in the Freudian hall of fame was assured.

The method employed an ability that had been evolving in the human mind for millennia — the ability to project oneself into a past moment — or, to use Trevor's term, a past "place-time" Considerable practice was required before the first transition could be achieved, but once it was achieved, successive transitions became progressively easier. Entering another person's mind-world was of course a more difficult undertaking, and could be achieved only after an intensive study of a certain moment in that person's past. In order to return to the objective world, it was necessary in both cases to locate the most recently materialized place-time and take one step beyond it.

By their very nature, mind-countries were confusing. They existed on a plane of reality that bore no apparent relationship to the plane of the so-called objective universe. In fact, so far as was known, this secondary — or subjective — reality was connected to so-called true reality only through the awareness of the various creators. In addition, these countries had no outward shape in the ordinary sense of the word, and while most countries contained certain parallel images, these images were subject to the interpretation of the individual creator. As a result they were seldom identical.

It was inevitable that sooner or later some criminal would hit upon the idea of hiding out in his own mind-world till the statute of limitations that applied to his particular crime ran out, and it was equally inevitable that others should follow suit. Society's answer was the psyche-police, and the psyche-police hadn't been in action very long before the first private psycheye appeared.

Blake was one of a long line of such operators.

So far as he knew, the present case represented the first time a criminal had ever hidden out in the pursuer's mind. It would have been a superb stratagem indeed if, shortly after her entry, Sabrina York had not betrayed her presence. For her point of entry she had used the place-time materialization of the little office Blake had opened on Ex-earth at the beginning of his career. Unaccountably she had ransacked it before moving into a coterminous memory-image.

Even this action wouldn't have given her away, however, if the office hadn't constituted a sentimental memory. Whenever Blake accepted a case he invariably thought of the bleak and lonely little room with its thin-gauge steel desk and battered filing cabinets, and when he had done so after accepting his case—or was it before? He couldn't quite remember—the mental picture that had come into his mind had revealed open drawers, scattered papers and a general air of disarray.

He had suspected the truth immediately, and when he had seen the woman's handkerchief with the initials "SB" embroidered on it lying by one of the filing cabinets he had known definitely that his quarry was hiding out in his mind. Retiring to his bachelor quarters, he had entered at the same place-time and set off in pursuit.

Her only advantage lost, Sabrina York was now at his mercy. Unless she discovered his presence and was able to locate his most recently materialized place-time before he overtook her, her capture was assured.

Only two things bothered Blake. The little office was far in his past, and it was unlikely that anyone save the few intimate acquaintances whom he had told about it were aware that it had ever existed. How, then, had a total stranger such as Sabrina York learned enough about it to enable her to use it as a point of entry?

The other thing that bothered him was of a much more urgent nature. He had been in enough minds and he had read enough on the subject of Trevorism to know that people were sometimes capable of creating beings considerably higher on the scale of mind-country evolution than ordinary memory-ghosts. One woman whom he had apprehended in her own mind had created a walking-talking Virgin Mary who watched over her wherever she went. And once, after tracking down an ex-enlisted man, he had found his quarry holed up in the memory-image of an army barracks with a ten-star general waiting on him hand and foot. But these, and other, similar, cases, had to do with maladjusted people, and moreover, the super-image in each instance had been an image that the person involved had *wanted* to create. Therefore, even assuming that Blake was less well-adjusted than he considered himself to be, why had he created three such malevolent super-images

as Miss Stoddart, Officer Finch, and Vera Velvetskin?

They followed him off the campus into a vicarious memory-image of Walden Pond, Thoreau's shack, and the encompassing woods. Judging from the ecstatic "oh's" and "ah's" they kept giving voice to, the place delighted them. Once, glancing back over his shoulder, he saw them standing in front of Thoreau's shack, looking at it as though it were a doll's house. Not far away, Thoreau was sitting in under a tall pine, gazing up into the branches at a bird that had come through only as a vague blur of beak and feathers.

Blake went on. Presently the Walden Pond memory-image gave way to a memory-image of an English park which the ex-Earth government had set aside as a memorial to the English poets and which had impressed Blake sufficiently when he had visited it in his youth to have found a place for itself in the country of his mind. It consisted of reconstructions of famous dwellings out of the lives of the poets, among them, a dwelling out of the life of a poet who was not in the strictest sense of the word English at all — the birthplace of Robert Burns. Oddly enough, it was Burns's birthplace that had impressed Blake most. Now the little cottage stood out in much more vivid detail than any of the other famous dwellings.

Sabrina York must have been attracted to the place, for her footprints showed that she had turned in at the gate, walked up the little path and let herself in the door.

They also showed that she had left by the same route, so there was no reason for Blake to linger. As a matter of fact, the fascination that had brought the place into being had been replaced by an illogical repugnance. But repugnance can sometimes be as compelling a force as fascination, and Blake not only lingered but went inside as well.

He remembered the living room distinctly — the flagstone floor, the huge grill-fronted hearth, the deeply recessed window, the rack of cups and platters on the wall; the empty straight-backed chair standing sternly in a corner, the bare wooden table —

He paused just within the doorway. The chair was no longer empty, the table no longer bare.

A man sat on the former and a bottle of wine stood on the latter. Moreover, the room showed signs of having been lived in for a long time. The floor was covered with tracked-in dirt and the walls were blackened from smoke. The grillwork of the hearth was begrimed with grease.

Whatever else he might be the man sitting at the table was not an image out of the past. He was too vividly real. He was around Blake's age, and about Blake's height and build. However, he was given to fat. His paunch contrasted jarringly with Blake's trim waist. His vaguely familiar face was

swollen — probably from the wine he had drunk — and his too-full cheeks were well on the way to becoming jowls. His bloodshot eyes were underscored with shadows, and his clothing consisted of odds and ends out of Blake's past: a tattered, too-tight pullover with the letter "L" on the front, a pair of ragged red-plaid hunting breeches and a pair of cracked riding-boots.

Blake advanced across the room and picked up the bottle. One sniff told him that it came from a memory-image of a Martian wine-cellar. He set the bottle back down. "Who are you?" he demanded.

The man looked up at him sardonically. "Call me Smith," he said. "If I told you who I really am, you wouldn't believe me."

"What are you doing in my mind?"

"You should know the answer to that one. You put me here."

Blake stared "Why, I've never even seen you before!"

"Granted," Smith said. "But you used to know me. As a matter of fact, you and I used to get along together famously." He reached around and got a cup off the wall-rack "Pull up a chair and have a drink. I've been expecting you."

Bewildered, Blake sat but shoved the cup aside "I don't drink." he said

"That's right." Smith said. "Stupid of me to forget." He took a swig out of the bottle, set it back down. "Let's see, it's been seven years now. Right?"

"How the devil did you know?"

Smith sighed. "Who should know better than I? Who indeed? But I guess I can't kick too much. You certainly materialized enough of the stuff in your — shall we say 'wilder'? — days." He shook his head. "No, I can't say I've suffered in that respect."

Comprehension came to Blake then. He had heard of the parasites who lived in other person's minds, but this was the first time he had ever happened to run across one. "Why, you're nothing but a mind-comber," he said. "I should have guessed!"

Smith looked hurt. "You do me a grave injustice, friend. A very grave injustice. And after my being so considerate of this cottage and using the back door and everything! The young lady who stopped by a little while ago was much more understanding than you are."

"You talked with her then?" Blake asked. He suppressed a shudder. For some reason it horrified him that his quarry should be aware that so despicable a creature inhabitied his mind. "What — what does she look like?"

"*You* know what she looks like."

"But I don't. I took the case on such short notice that I didn't have a chance to get a picture or even a description of her."

Smith regarded him shrewdly. "What did she do?"

"She murdered her father," Blake said.

Smith guffawed. "I should have

known it would be something like that. Ties in perfectly. By the way, what's her name?"

"Sabrina York — not that it's any of your business."

"Oh, but it is my business — as much my business as yours. As a matter of fact, I'm going to help you find her."

Blake stood up. "No, you're not," he said. "You're going to get out of my mind and you're going to stay out —"

He paused as a knock sounded on the door. Smith answered it, and a moment later Miss Stoddart, Officer Finch and Vera Velvetskin filed into the room and arrayed themselves before Blake. Again three arms were raised; again three forefingers were pointed accusingly at his chest. "Wretched creature!" said Miss Stoddart. "Consorting with so foul a fiend!" said Officer Finch. "And in so vile a den of iniquity!" said Vera Velvetskin.

For a while Smith just stood there staring at the three visitors. Then he turned toward Blake. "Well, I'll be damned!" he said. "You really do have an overactive conscience, don't you!" He faced the three women again. "Get off his back, you creeps! Can't you see he's got enough troubles without you dogging his footsteps?" He opened the door. "Out, all of you, before I throw you out!"

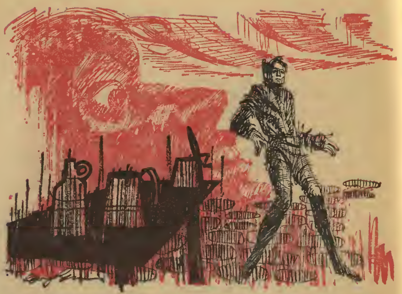
Three frightened looks settled on the three thin faces, but neither Miss Stoddart nor Officer Finch nor Vera Velvetskin made a move in the direction of the door till Smith advanced upon them with lowering countenance. Then they fairly scampered from the room. Officer Finch was the last in line, and Smith helped her along with the toe of one of Blake's cracked boots. The shriek she emitted coincided with the slamming of the door.

Smith leaned weakly against the door and began to laugh. "Shut up," Blake said, "and tell me who they are!"

Tears were rolling down Smith's blotchy cheeks. "*You* know who they are. You created them, didn't you? The skinny one is the one who told you about Moses in the bulrushes and the husky one is the one who saw to it that you didn't step out of line in school and the one with the nice shape is the one you associate with the immaculateness of your mother's kitchen sink. Spiritual virtue, civil virtue—and physical virtue!"

"But why did I create them?" Blake demanded. "And why are they following me around like a bunch of vindictive harpies?"

"There!" Smith said. "You almost had it. Not harpies, though—Furies. Erinyes. Tisiphone, Megaera, Alecto. You created them because you wanted to punish yourself. You created them because you can't accept yourself for what you are. You created them because even after putting me in exile you're still conscience-crazy, and they're following you around and bugging you be-



cause you want them to follow you around and bug you — because you want to be reminded of what a heel you think you are! You always were a Puritan in wolf's clothing, Blake."

The remark angered Blake to the extent that it dispelled his amazement. He shoved Smith away from the door and opened it. "All that may be," he said, "and maybe I did know you once upon a time. But don't let me find you here when I get back. Understand?" He paused in the doorway, frowning. "Tell me one more thing, though. Why Burns's birthplace? Why should a memory-image like this appeal to a mindcomber?"

Smith grinned. "Bobby Burns has always fascinated me — just as he has you. Or should I say 'us'?" The grin turned into a leer, and he picked up the bottle and waved it back and forth like a baton —

> My love, she's but a lassie yet,
> My love, she's but a lassie yet;
> We'll let her stand a year or
> twa,
> She'll no be half sae saucy yet;
> I rue the day I sought her O!
> I rue the day I sought her O!
> Wha gets her needs na say he's
> woo'd,
> But he may say he has bought
> her O.

Furious, Blake strode down the path, Smith's taunting laughter sounding in his wake.

The three Erinyes were waiting for him at the gate, and fell in be-

hind him when he turned down the lane. He lost Sabrina's trail in front of the farmhouse where Coleridge wrote *Kubla Khan,* picked it up again opposite the Mitre Tavern. Presently it veered right, passed between Milton's birthplace and Stratford-on-Avon, and entered a night-image. He was halfway down a dim-lit street, the Erinyes just behind him, before he realized where he was.

Disciplined trees stood at attention along two suburban strips of lawn. Beyond them, half-remembered houses showed. One of them stood out vividly — a round, modernesque affair surrounded by a quarter-acre of grass and shrubs and flowers. It was the house he had rented while Deirdre Eldoria was attending high school. It was a house he had hoped never to see again.

He was seeing it now, though, and he was going to see it at much closer quarters, for Sabrina's footprints led straight across the remembered lawn to the very doorstep. She had not gone in, however, he discovered presently; instead, she had forsaken the door for a concave picture window through which bright light streamed out onto the grass. The depth of a pair of her footprints showed that she had stood there for a long time, peeking into his past. Despite himself, Blake peeked too. So did the three Erinyes.

The room was a far cry from the one he had just left. The hearth was

built of meticulously mortared red bricks. The thick rug was a two-dimensional garden of multicolored flowers. There were exquisite tables and flower-petal stools. There were deep chairs that begged to be sat in. A sybaritic sofa occupied an entire wall.

On the sofa sat a man and a girl. The man was himself at the age of thirty-four. The girl was Deirdre Eldoria at the age of seventeen.

Blake Past was helping her with her lessons. The moment was a composite of a hundred similar scenes. Now she raised her eyes from the book on her lap, and Blake Past caught her girlish profile . . . and Blake Present, standing in the soft and scented darkness of the remembered spring night with the three Erinyes breathing down the back of his neck, caught it too, and both Blakes knew pain. Now she returned her attention to the book, and Blake Past leaned forward in order to read the passage that she was in doubt about. And as he did so, her copper-colored hair touched his cheek and the warm tingle of the contact traveled down through the years to Blake Present.

Overcome by the poignancy of the moment, he stepped back from the window, colliding with the three Erinyes as he did so. They moved a little distance away, arrayed themselves, and started to raise their right arms. "Oh, can it!" Blake said disgustedly. In the darkness behind him, someone laughed. *"My love, she's but a lassie yet,"* Smith sang in a cracked baritone. *"We'll let her stand a year or twa, she'll no be half sae saucy yet!"*

Blake whirled, and flashed his light into the shadows. The light picked up Smith's retreating figure. "Get out of my mind!" Blake shouted. "Do you hear me? Get out of my mind!"

Laughter danced in the darkness, silence ensued. Turning back toward the window, Blake saw that Blake Past and Deirdre Yesterday were leaving the living room. He watched them come out the front door, walk around the corner of the house and start down a starlit garden path.

Forsaking Sabrina's trail, he followed them along the path, the Erinyes at his heels, and watched them sit down on a little white bench beside a rose-riotous trellis. As he watched, Blake Past broke one of the roses free and pinned it in Deirdre's cupreous hair.

Blake Present plunged away from the moment and picked up Sabrina's trail again. *Why did I sit there beside her?* he demanded silently of the remembered stars. *Sit there beside her like her lover when the roses were in bloom? Father-protector — father-fool! I slept with her mistress, and I would have been her Naoise! Within earshot of her conched ear I lay with her black whore-mother, and when the satyr in me was replete I stepped over her thin child's body and ran away!*

Behind him in the night, the Erinyes hissed and murmured to each other gloatingly.

Sabrina's trail had been erratic before. Now it became even more so. It approached this boundary and that, only to veer off in another direction. Sometimes it doubled back upon itself, and each time Blake was able to cut down on her lead. He should have been elated. Strangely, however, he was not. Instead, a feeling of uneasiness afflicted him, increasing as the distance between them shrank.

At length, after detouring around an impassable memory-image of deep space, the trail extended into what at first appeared to be a vast woodland park. It was not a park, though. It was a Dubhe 4 rubber plantation. Blake groaned. Did he have to relive this sequence too?

Apparently he did. Sabrina's footprints were deep and undeniable in the soft earth. They pointed unerringly in the remembered direction. Had she discovered that he was following her? Was she deliberately torturing him by making him backtrack along a mental trail that he wanted desperately to avoid? It would certainly seem so.

He forced himself to move forward among the gray ghosts of trees. He crossed a shallow, scum-covered stream, leaping from rock to rock, and afterward climbed a hill. Hearing a loud splash behind him, he turned and looked back.

Miss Stoddart, in trying to cross the stream, had lost her balance and fallen in, and Officer Finch and Vera Velvetskin were trying to help her to her feet. As he watched, they too lost their balance and joined their companion in the greenish water. There followed a period of hysterical floundering, after which the trio waded dripping and bedraggled to the bank.

Blake would have laughed, had not the place-time oppressed him. Descending the opposite slope of the hill, he entered a wide valley. Presently he glimpsed the buildings of the Great Starway Cartel processing plant through the trees.

The overseer's bungalow was visible just to the left, and it was toward this latter structure that Sabrina's footprints pointed. The original clearing had swarmed with chocolettos. Blake's, however, did not. In his single-mindedness of six years ago he had had eyes for only two people — the overseer and Deirdre.

Stepping into the clearing, he saw the man now — the bearded bestial face, the long arms, the large and hairy hands — and he saw the fifteen-year old girl lying on the ground where the man had thrown her after she had slapped his face. After a moment he saw himself of six years ago step out of the grove of rubber trees and advance white-faced into the scene.

"No!" the girl lying on the ground cried. "He'll kill you!"

Blake Past ignored her. The overseer had drawn a knife. Now the knife flashed, and a streak of crimson appeared on Blake Past's arm. The knife flashed again, but this time it described a large arc and landed a dozen feet away. Now the

overseer's throat was between Blake Past's hands, and the bearded face was changing colors. It grew green first, then blue. Blake Past shook the man several times before letting him slip to the ground. He dropped a handful of *quandoe*-notes on the heaving chest.

"That's what you paid for her," he said. He withdrew a paper from his breast pocket, unfolded it and held it before the gasping overseer's eyes. "Sign it," he said, handing it to him.

The overseer did so, lying on his side. Blake Past pocketed the paper and helped the girl to her feet. The tarn-blue eyes were wide in the thin child's face. "Eldoria died," she blurted. "They —"

Blake Past nodded. "I know. But they can't sell you any more. I own you now."

"I am glad," the girl said. "I knew from the first moment I saw you that you were noble. I shall like being your slave, and I will serve you very faithfully."

Blake Past looked away. Blake Present lowered his eyes. "Can you walk?" Blake Past asked.

"Oh, yes. I am very strong."

She took a step forward, swayed and would have fallen, had not Blake Past caught her. "I — I guess I am not quite as strong as I thought," she said. "But I shall recuperate swiftly. Why did you come back, *mensakin* Blake?"

"I came back to buy you from Eldoria," Blake Past said. He did not add that the memory of her saintly face as he had seen it when he stepped over her had lasted a whole year, or that his dreams of her had made a mockery of his sleep. "When I found out that Eldoria had died and that you had been sold again, I came directly here."

"You will not be sorry. I will make you an excellent slave."

"I didn't buy you for that reason. I bought you to give you your —"

"There is one request I would like to make, however," the girl interrupted. "I would like to take 'Eldoria' as my surname. She was very kind to me, and I would like to repay her in some way."

"Very well," Blake Past said. " 'Deirdre Eldoria' it will be, then."

He picked her up and carried her into the grove. Blake Present watched them till they disappeared among the trees. He knew where Blake Past was taking her — had taken her. Back to the settlement, and from there to the spaceport, and thence to Ex-earth. Ex-earth and high school, then college —

She had never been his slave, though. He had been hers.

Sabrina's trail circled back into the grove and left the placetime by a different route. Immediately it became erratic again. It was evident to Blake that she was searching for a particular memory-image and that she was having trouble finding it. Perhaps she knew of some moment in his past where she would be safe even from him.

When he stepped into the little Dubhe 4 settlement he instinctively assumed that it was on the same chronological plane as the plantation place-time. However, the darkness that instantly enclosed him and the stars that sprang to life in the sky apprised him that such could not possibly be the case. This was the Dubhe 4 settlement of seven years ago. This was the night he had sat in the chocoletto cafe and watched Eldoria dance — the night he had kept a tryst with her in her hut; the night he had first seen Deirdre.

But why had Sabrina come here? Where in this wretched little memory-image did she expect to find sanctuary?

Suddenly he knew. Eldoria's hut. He would rather die than enter it again, and somehow Sabrina must have discovered his attitude. Probably even now she was within those four remembered walls, laughing at him.

Anger kindled in him. The effrontery of her! Daring to pre-empt a moment that belonged solely to him! He would enter the hut if it killed him. If he had to, he would tear down its walls and banish its memory forever from the country of his mind.

With the aid of his pocket torch, he found her footprints in the dust. He followed them down the street, the three Erinyes tagging doggedly along behind him. The trail, erratic no longer, led straight to the labyrinthine alleys of the native sector and thence along the shortest route to Eldoria's hut. For a person who had never been to Dubhe 4, Sabrina York certainly knew her way around.

Maybe, though, she had been to Dubhe 4. He knew very little about her. He knew nothing at all, in fact, save that she had murdered her father. He did not even know how she had murdered him, or why. Abruptly Blake shoved the matter from his mind. It wasn't his business to know how or why she had done the deed. It was his business to find and apprehend her.

Presently, in the darkness before him, he made out a motionless white-robed figure. He approached it warily, found to his consternation that it was frozen in the act of taking a step forward. He shone his light into the face. It was dark bronze in hue. The eyes were wide apart, and the teeth showed in a vivid white line between half-parted purple lips. Eldoria, on her way to keep her tryst with him...

But why didn't she move on? Suddenly Blake knew. In treating a patient, Trevorite psychologists sometimes froze certain place-times in his past in order to study them in greater detail. The girl in Blake's mind had either frozen the Dubhe 4 place-time herself, then, or had hired a professional to do the job.

Clearly she had something up her sleeve about which Blake knew nothing.

He went on, not quite so confidently now. He had proceeded less than a dozen steps when he saw the

brooch. It was lying in the dust just to the left of one of Sabrina's footprints, and it threw back the light of the torch in glittering shards that hurt his eyes. Disbelievingly, he picked it up. The Erinyes clustered around him to see what he had found. They were still wet and dishelved and reeked of the piercing odor of decayed algae. They looked anything but happy.

Blake turned the brooch over in the palm of his hand. The inscription on the back leaped up and smote him right between the eyes, and he staggered and nearly fell. *To Deirdre Eldoria,* he read, *from Nathan Blake.*

He stood there numbly for a long while, not thinking — unable to think. Finally he slipped the brooch into his pocket and moved on.

He was trembling when he reached the door of Eldoria's hut. The footprints led straight up to to the threshold and came to an end. Diffidently he touched the primitive knob, turned it and pushed the door open. He stepped inside and closed the door in the faces of the three Erinyes. The remembered anteroom seemed smaller and more sordid than the original, but he knew that it was really no different. He had remembered it accurately enough. It was he who was different, not the room.

Opposite the door, Deirdre Yesterday sat immobile before the arras. Equally immobile, Blake Past sat facing her. Deirdre Yesterday's lips were parted in the midst of uttering a soundless word. The *Anabasis* lay open on her lap.

Blake Present found it difficult to breathe. The difficulty stemmed from a physical as well as an emotional source. Someone was burning incense.

He wiped his forehead. Then, bracing himself, he walked over to the arras, parted it and stepped into the inner room.

The inner room was empty.

A small notebook lay upon the dais among the scattered scarlet cushions. Near it was a faint depression in the foamy coverlet. Blake picked up the notebook. The first page contained a hastily written message:

Nate dearest, I've lost my nerve, and by the time you read this I shall have run away. Please forgive me for disobeying you. I wanted desperately to fulfill your wishes by going to New Earth and attending Trevor University, and now I shall, because sitting here in this little room I have faced at last the very real possibility that you really do not love me. I had hoped that by entering your mind and leading you back through our moments together to the moment when we met and by freezing that moment and letting you find me in this room, you would be shocked into associating me with Eldoria rather than with the naive little girl sitting outside the arras — with sex, rather than with saintliness; that I could bring you to un-

derstand that the little-girl image you have of me is as unrealistic as the father-image you have of yourself. But the passing moments have made me realize that all this while I have been deluding myself with false hopes and that I am merely hopelessly in love with a man who does not regard me as a woman at all, who —

Here the message broke off as abruptly as it had begun. There was a mist before Blake's eyes, and he could not swallow. He bent down and felt the depression in the coverlet. It was still warm. There had been no footprints leading *away* from the hut, he remembered.

Straightening, he surveyed the golden tapestries that adorned the room's four walls. It was not at all difficult to pick out the one behind which she was standing. It was difficult, though, to go over and raise it. Her face was pale, and the khaki hiking suit she was wearing made it seem all the more so. She stepped out of her hiding place, and he let the tapestry fall into place behind her.

She would not meet his eyes. "In another moment I would have been gone," she said. "Oh, Nate. why did you come so soon!"

Suddenly the arras parted, and Smith stepped into the room. Without pausing, he advanced across the resilient carpet, shoved Blake aside and took Deirdre into his arms. He grasped her hair, pulled her head back and bent his evil face toward hers.

Outraged, Blake seized the man's shoulder, spun him around and struck him in the mouth. Instantly his own mouth went numb, and he tasted blood.

He knew who Smith was then.

Glancing into Deirdre's eyes, he saw that she knew too, and realized that she had known all along.

He had read of the personality-splits that sometimes occurred when there was an acute conflict between the Puritan and satyr, or the good and evil, components of the psyche. But never having previously run across a real-life example he had failed to tumble to the truth when he had entered Burns's birthplace cottage and seen Smith sitting at the table.

When such splits occurred, the stronger component took over completely and the weaker component was exiled to the country of the mind. In Blake's case, the Puritan component had been the stronger, and the satyr component the weaker. Hence the latter had had to go. Smith, therefore, was but another aspect of himself — a flesh-and-blood alter ego who was overplaying his role in an attempt to force Blake into a response that would make the two of them one again.

Knowing who Smith was supplied Blake with the answer to who Sabrina York was.

Unconsciously he had been aware all along of Smith's presence in the English park image. When he dis-

covered that Deirdre had entered his mind he had been so utterly horrified over the prospect of her running into his depraved alter ego that he had unconsciously concealed her presence from himself by supplying her with a fictitious identity. She had deliberately ransacked the little office and left her handkerchief behind in the process in order to apprise him of her whereabouts and to induce him to follow her, but he had rejected the initials "D. E." on her handkerchief and substituted the initials of the first name that came into his mind — Sabrina York. Next he had needed a logical reason to go after her and bring her back. His profession had supplied part of it, and his father-complex had supplied the other.

In entering his mind instead of going to New Earth, Deirdre had disobeyed him and thus, after a fashion, had symbolically destroyed him. Hence "Sabrina York" had become the murderer of her father, and Blake had set out in pursuit of her in his capacity as a psycheye. Deirdre had been careful to leave a clear trail, and the reason she had dropped her brooch was to assure him that he was on the right track.

Smith was wiping his mouth and grinning at the same time. Now he advanced upon the girl again. Twenty years fell from Blake's shoulders as he shoved the man aside. The column of Deirdre's neck was strong and shapely. Her breasts were in full and virginal bloom. *Who is she that looketh forth as the morning, fair as the moon, clear as the sun, and terrible as an army with banners?* Hungrily Blake took her in his arms.

When, a long time later, he released her, Smith had disappeared.

The three Erinyes were standing forlornly in the street when Blake and Deirdre left the hut. The hatred had vanished from their faces and they were looking at each other as though they had just lost their last friend. Certainly they had lost their *raison d'etre*. Blake sighed. Having created them, he was responsible for their welfare. Now that they were unemployed it was up to him to do something about it.

Deirdre was regarding them with wide eyes. "Eumenides yet!" she gasped. "Oh, Nate, if you aren't the darndest!"

Blushing, Blake took her arm and beckoned to the Erinyes to follow him. He led the way cross-country to the Walden Pond image. Thoreau was still sitting under the tall pine, gazing raptly up at the blurred bird. The sunlight was warm and benign. Blake almost wished he could remain there himself. He had always been partial to Walden Pond.

He faced the three Erinyes.

He left them planning their new way of life.

Being human, he would probably have need of them again. END

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TO SEE THE INVISIBLE MAN

BY ROBERT SILVERBERG

His crime was nameless.
His punishment, endless!

And then they found me guilty, and then they pronounced me invisible, for a span of one year beginning, on the eleventh of May in the year of grace 2104, and they took me to a dark room beneath the courthouse to fix the mark on my forehead before turning me loose.

Two municipally paid ruffians did the job. One flung me into a chair and the other lifted the brand.

"This won't hurt a bit," the slab-jawed ape said. He thrust the brand against my forehead, and there was a moment of coolness, and that was all.

"What happens now?" I asked.

But there was no answer. They turned away from me and left the room without a word. The door remained open. I was free to leave, or to stay and rot, as I chose. No one would speak to me, or look at me more than once, long enough to see the sign on my forehead.

I was invisible.

You must understand that my invisibility was strictly subjective. I still had corporeal solidity. People *could* see me — but they *would not* see me.

An absurd punishment? No. Or — yes — but then the crime was absurd too. The Crime of Coldness. Refusal to unburden myself for my fellow man. I was a four-time of-

fender. The penalty for that was a year's invisibility The complaint had been duly sworn, the trial duly held, the brand duly affixed.

I was invisible.

I went out into the world of wrath.

They had already had the afternoon rain. The streets of the city were drying, and there was the smell of growth in the Hanging Gardens. Men and women went about their business. I walked among them, but they took no notice of me.

The penalty for speaking to an invisible man is invisibility, a month to a year or more, depending on the seriousness of the offense. On this the whole concept depends. I wondered how rigidly the rule was observed.

I soon found out.

I stepped into a liftshaft and let myself be spiraled up toward the nearest of the Hanging Gardens. It was Eleven, the cactus garden, and those gnarled, bizarre shapes suited my mood. I emerged on the landing stage and advanced toward the admissions counter to buy my token. A pasty-faced, empty-eyed woman sat back of the counter.

I laid down my coin. Something like fright entered her eyes, quickly faded.

"One admission," I said.

No answer People were queueing up behind me. I repeated my demand The woman looked up helplessly, then stared over my left shoulder. A hand extended itself, another coin was placed down. She took it, and handed the man his token. He dropped it in the slot and went in.

"Let me have a token," I said crisply.

Others were jostling me out of the way. Not a word of apology. I began to sense some of the meaning of my invisibility They were literally treating me as though they could not see me

There are countervailing advantages. I walked around behind the counter and helped myself to a token without paying for it. Since I was invisible, I could not be stopped. I thrust the token in the slot and entered the Garden.

But the cacti bored me. An inexpressible malaise slipped over me, and I felt no desire to stay. On my way out I pressed my finger against a jutting thorn and drew blood. The cactus, at least, still recognized my existence. But only to draw blood.

I returned to my apartment. My books awaited me, but I felt no interest in them. I sprawled out on my narrow bed and activated the energizer to combat the strange lassitude that was afflicting me. I thought about my invisibility.

It would not be such a hardship, I told myself I had never depended overly on other human beings. Indeed, had I not been sentenced in the first place for my coldness toward my fellow creature? So what need did I have of them now? *Let* them ignore me!

It would be restful. I had a year's

respite from work, after all. Invisible men did not work. How could they? Who would go to an invisible doctor for a consultation, or hire an invisible lawyer to represent him, or give a document to an invisible clerk to file? No work, then. No income, of course, either. But landlords did not take rent from invisible men. Invisible men went where they pleased, at no cost. I had just demonstrated that at the Hanging Gardens.

Invisibility would be a great joke on society, I felt. They had sentenced me to nothing more dreadful than a year's rest cure. I was certain I would enjoy it.

But there were certain practical disadvantages. On the first night of my invisibility I went to the city's finest restaurant. I would order their most lavish dishes, a hundred-unit meal, and then conveniently vanish at the presentation of the bill, I thought.

My thinking was muddy. I never got seated I stood in the entrance half an hour, bypassed again and again by a maitre d'hotel who had clearly been through all this many times before. Walking to a seat, I realized, would gain me nothing. No waiter would take my order.

I could go into the kitchen. I could help myself to anything I pleased. I could disrupt the workings of the restaurant. But I decided against it. Society had its ways of protecting itself against invisible ones. There could be no direct retaliation, of course, no intentional defense. But who could say no to a chef's claim that he had seen no one in the way when he hurled a pot of scolding water toward the wall? Invisibility was invisibility, a two-edged sword.

I left the restaurant.

I ate at an automated restaurant nearby. Then I took an autocab home. Machines, like cacti, did not discriminate against my sort. I sensed that they would make poor companions for a year, though.

I slept poorly.

The second day of my invisibility was a day of further testing and discovery.

I went for a long walk, careful to stay on the pedestrian paths. I had heard all about the boys who enjoy running down those who carry the mark of invisibility on their foreheads. Naturally, there is no recourse against them, and no punishment for them. My condition has its little hazards. . .by intention.

I walked the streets, seeing how the throngs parted before me I cut through them like a microtome passing between cells. They were well trained. At midday I saw my first fellow Invisible. He was a tall man of middle years, stocky and dignified, bearing the mark of shame on a dome-like forehead His eyes met mine only for a moment. Then he passed on.

Even an invisible man cannot see another of his kind

I was amused, nothing more. I was still savoring the novelty of this way of life. No slight could hurt me. Not yet.

Late in the day I came to one of those bathhouses where working girls can cleanse themselves for a couple of small coins. I smiled wickedly and went up the steps. The attendant at the door gave me the flicker of a startled look. It was a small triumph for me; she did not dare to stop me.

I went in.

An overpowering smell of soap and sweat struck me. I persevered inward. I passed cloakrooms where long rows of gray smocks were hanging, and it occurred to me that I could rifle those smocks of every unit they contained, but I did not Theft loses meaning when it becomes too easy, as the clever ones who devised invisibility were aware.

I passed on, into the bath chambers themselves.

Hundreds of women were there. Nubile girls, weary wenches, old crones. Some blushed. A few smiled. Many turned their backs on me. But they were careful not to show any real reaction to my presence. Supervisory matrons stood guard, and who knew but that she might be reported for taking undue cognizance of the existence of an Invisible?

So I watched them bathe, watched five hundred pairs of bobbing breasts, watched naked bodies glistening under the spray. watched this vast damp mass of female skin. My reaction was a mixed one, wicked achievement at having penetrated this sanctum unhalted, and then, welling up slowly within me, a sensation of — was it sorrow? Boredom? Revulsion? Or something I could not name?

I was unable to analyze it. But it felt as though a clammy hand had seized my throat. I left quickly. The smell of soapy water stung my nostrils for hours afterward, and the sight of pink flesh haunted my dreams that night. I ate alone, in one of the automatics. I began to see that the novelty of this punishment was soon lost.

In the third week I fell ill. It began with a high fever, then pains of the stomach. vomiting, the rest of the ugly symptomatology. By midnight I was certain I was dying. The cramps were intolerable, and when I dragged myself to the bath cubicle I caught sight of my face in the mirror, distorted, greenish, beaded with sweat. The mark of invisibility stood out like a beacon in my pale forehead.

For a long time I lay on the tiled floor, limply absorbing the coolness of it. Then I thought: what if it's my appendix? That ridiculous, obsolete, obscure prehistoric survival? Inflamed, ready to burst?

I needed a doctor.

The phone was filmed with dust. They had not bothered to disconnect it, but I had not called anyone since my arrest, and no one had dared call me. The penalty for knowingly telephoning an invisible man is invisibility. My friends, such that they were, had stayed far away.

I grasped the phone, thumbed the panel. It lit up and the directory

robot said, "With whom do you wish to speak, sir?"

"Doctor," I gasped.

"Certainly, sir." Bland, smug mechanical! There was no way to pronounce a robot invisible, so it was free to talk to me!

The screen glowed. A doctorly voice said, "What seems to be the trouble?"

"Stomach pains. Maybe appendicitis."

"We'll have a man over in—" He stopped. I had made the mistake of upturning my agonized face. His eyes lit on my forehead-mark. The screen winked into blackness as rapidly as though I had extended a leprous hand for him to kiss.

"Doctor," I groaned.

He was gone. I buried my face in my hands. This was carrying things too far, I thought. Did the Hippocratic Oath allow things like this? Could a doctor ignore a sick man's plea for help?

Hippocrates had not known anything about invisible men. A doctor was not required to minister to an invisible man. To society at large I simply was not there. Doctors could not diagnose diseases in nonexistent individuals.

I was left to suffer.

It was one of invisibility's less attractive features. You enter a boudoir unhindered, if that pleases you — but you writhe on a bed of pain equally unhindered. The one with the other, and if your appendix happens to rupture, why, it is all the greater deterrent to others who might perhaps have gone your lawless way!

My appendix did not rupture. I survived, though badly shaken.

A man can survive without human conversation for a year. He can travel on automated cars and eat at automated restaurants. But there are no automated doctors. For the first time, I felt truly beyond the pale. A convict in a prison is given a doctor when he falls ill. My crime had not been serious enough to merit prison, and so no doctor would treat me if I suffered. It was unfair.

I cursed the devils who had invented my punishment. I faced each bleak dawn as alone as Crusoe on his island, in the midst of a city of twelve million souls.

How can I describe my shifts of mood, my many tacks before the changing winds of the passing months?

There were times when invisibility was a joy, a treasure. In those paranoid moments I gloried in my exemption from the rules that bound ordinary men.

I stole. I entered stores and seized the receipts while the cowering merchant feared to stop me, lest in crying out he make himself liable to my invisibility. If I had known then that the State reimbursed all such losses, I might have taken less pleasure in it; but I stole.

I invaded. The bathhouse never tempted me again, but I breached other sanctuaries. I entered hotels and , alked down the corridors,

opening doors at random. Most rooms were empty. Some were not.

Godlike, I observed all. I toughened. My disdain for society — the crime that had earned me invisibility in the first place — heightened.

I stood in the empty streets during the periods of rain, and railed at the gleaming faces of the towering buildings on every side. "Who needs you?" I roared. "Not I! Who needs you in the slightest?"

It was a kind of insanity, brought on, I suppose, by the loneliness. I entered theaters, where the happy lotus-eaters sat slumped in their massage-chairs, transfixed by the glowing tridim images, and I capered down the aisles. No one grumbled at me. The luminescence on my forehead told them to keep their complaints to themselves, and they did.

Those were the mad moments, the good moments, the moments when I towered twenty feet high and strode among the visible clods with contempt oozing from every pore. Those were insane moments. I admit that freely. A man who has been in a condition of involuntary invisibility for several months is not likely to be well-balanced.

Did I call them paranoid moments? Manic-depressive might be more to the point. The pendulum swung dizzily. The days when I felt only contempt for the visible fools all around were balanced by days when the isolation pressed in tangibly on me. I would walk the endless streets, pass through the gleaming arcades, stare down at the highways with their streaking bullets of gay colors. Not even a beggar would come up to me. Did you know we had beggars, in our shining century? Not till I was pronounced invisible did I know it, for then my long walks took me to the slums, where the shine had worn thin, and where shuffling stubblefaced old men beg for small coins.

No one begged for coins from me.

Once a blind man came up to me. "For the love of God," he wheezed, "help me to buy new eyes from the eye-bank."

They were the first direct words any human being had spoken to me in months. I started to reach into my tunic, to give him every unit on me in gratitude. Why not? I could get more simply by taking it. But before I could draw the money out, a nightmare figure hobbled on crutches between us. I caught the whispered word, "Invisible," and then the two of them scuttled away like frightened crabs. I stood there stupidly holding my money.

Not even the beggars!

So I softened again. My arrogance ebbed away. I was lonely now. Who could accuse me of coldness? I was spongy-soft, pathetically eager for a word, a smile, a clasping hand. It was the sixth month of my invisibility.

I loathed it entirely now. Its pleassures were hollow, its torment was unbearable. I wondered how I would survive the remaining six months. Believe me, suicide was not far from my mind in those dark hours.

And finally I committed an act of foolishness. On one of my endless walks I encountered another Invisible, no more than the third or the fourth such creature I had seen in my six months. As in the previous encounters, our eyes met warily for a moment. Then he dropped his glance to the pavement, sidestepped me and walked on. He was a slim young man, no more than forty, with tousled brown hair and a narrow, pinched face. He had a look of scholarship about him, and I wondered what he might have done to merit him his punishment, and I was seized with the desire to run after him and ask him, learn his name, talk to him, embrace him.

All these things are forbidden. No one shall have any contact whatsoever with an Invisible—not even a fellow Invisible. *Especially* not a fellow Invisible. There is no wish on society's part to foster a secret bond of fellowship among its sentenced pariahs.

I knew all this.

I turned and followed him, none the less.

For three blocks I moved along behind him, remaining twenty to fifty paces to the rear. Security robots seemed to be everywhere, their scanners quick to detect an infraction, and I did not dare make my move. Then he turned down a gray, dusty street five centuries old, strolling with the ambling, going-nowhere gait of the Invisible. I came up behind him.

"Please," I said softly. "No one will see us here. We can talk. My name is —"

He whirled on me, horror in his eyes. His face was pale. He looked at me in amazement a moment, then darted forward as though to go around me.

I blocked him.

"Wait," I said. "Don't be afraid. Please!"

He burst past me. I put my hand on his shoulder, and he wriggled free.

"Just a word," I begged.

Not even a word. Not even a hoarsely uttered, "Leave me alone!" He sidestepped me and ran down the empty street, his steps diminishing from a clatter to a murmur as he reached the corner and rounded it. I looked after him, feeling a great loneliness well up in me.

And then a fear. *He* hadn't breached the rules of invisibility, but I had. I had seen him. That left me subject to punishment, an extension of my term of invisibility, perhaps. I looked around anxiously, but there were no security robots in sight, no one at all.

I was alone.

Turning, calming myself, I continued down the street. Gradually I regained control over myself. I saw that I had done something unpardonably foolish. The stupidity of my action troubled me, but even more the sentimentality of it. To reach out in that panicky way to another Invisible — to admit openly my loneliness, my need — no! It meant

return to visibility that the ultimate lesson of my sentence struck home, though. I was in the vicinity of the City Tower, having returned to my old job in the documents division of the municipal government. I had left work for the day and was walking toward the tubes when a hand emerged from the crowd, caught my arm.

"Please," the soft voice said. "Wait a minute. Don't be afraid."

I looked up, startled. In our city strangers do not accost strangers.

I saw the gleaming emblem of invisibility on the man's forehead. Then I recognized him — the slim boy I had accosted more than half a year before on that deserted street. He had grown haggard; his eyes were wild, his brown hair flecked with gray. He must have been at the beginning of his term, then. Now he must have been near its end.

He held my arm. I trembled. This was no deserted street. This was the most crowded square of the city. I pulled my arm away from his grasp and started to turn away.

"No — don't go," he cried. "Can't you pity me? You've been there yourself."

I took a faltering step. Then I remembered how I had cried out to him, how I had begged him not to spurn me. I remembered my own miserable loneliness.

I took another step away.

"Coward!" he shrieked after me. "Talk to me! I dare you! Talk to me, coward!"

It was too much. I was touched. Sudden tears stung my eyes, and I turned to him, stretched out a hand to his. I caught his thin wrist. The contact seemed to electrify him. A moment later, I held him in my arms, trying to draw some of the misery from his frame to mine.

The security robots closed in, surrounding us .He was hurled to one side, I was taken into custody. They will try me again — not for the Crime of Coldness, this time, but for a crime of warmth. Perhaps they will find extenuating circumstances and release me; perhaps not.

I do not care. If they condemn me, this time I will wear my invisibility like a shield of glory. END

that society was winning. I couldn't have that.

I found that I was near the cactus garden once again. I rode the liftshaft, grabbed a token from the attendant and bought my way in. I searched for a moment, then found a twisted, elaborately ornate cactus eight feet high, a spiny monster. I wrenched it from its pot and broke the angular limbs to fragments, filling my hands with a thousand needles. People pretended not to watch. I plucked the spines from my hands and, palms bleeding, rode the liftshaft down, once again sublimely aloof in my invisibility.

The eighth month passed, the ninth, the tenth. The seasonal round had made nearly a complete turn. Spring had given way to a mild summer, summer to crisp autumn, autumn to winter's fortnightly snowfalls, still permitted for esthetic reasons. And winter ended. In the parks, the trees sprouted green buds. The weather control people stepped up the schedule of rainfall to thrice daily.

My term was drawing to its end.

In the final months of my invisibility I had slipped into a kind of torpor. My mind, forced back on its own resources, no longer cared to consider the implications of my condition, and I slid in a blurred haze from day to day. I read compulsively and unselectively, Aristotle one day, the Bible the next, a handbook of mechanics the next. I retained nothing. As I turned to a fresh page, its predecessor slipped out of my memory.

I no longer bothered to enjoy the few advantages of invisibility, the voyeur's thrills, the minute throb of power that comes from being able to commit any act with only limited fear of retaliation. I say *limited* because the passage of the Invisibility Act had not repealed human nature, quite. A few men would still risk invisibility to protect their wives or children from an invisible one's molestations. No one would coolly allow an Invisible to jab out his eyes. There were ways of coping with such infringements without appearing to recognize the existence of the Invisible, as I have mentioned.

Still, it was possible to get away with a great deal. I declined to try. Somewhere Dostoeivski has written, "Without God, all things are possible." I can amend that. "To the invisible man, all things are possible — and uninteresting." So it was.

The weary months passed.

I did not count the minutes till my release. To be precise, I wholly forgot that my term was due to end. On the day itself, I was reading in my room, morosely turning page after page, when the annunciator chimed.

It had not chimed for a full year. I had almost forgotten the meaning of the sound.

But I opened the door. There they stood, the men of the law. Wordlessly, they broke the seal that held the mark to my forehead. The emblem dropped away and shattered.

"Hello, citizen," they said to me.

I nodded gravely. "Yes. Hello."

"May 11, 2105. Your term is up. You are restored to society. You have paid your debt."

"Thank you. Yes."

"Come for a drink with us."

"I'd sooner not."

"It's the tradition. Come along."

I went with them. My forehead felt strangely naked now, and I glanced in a mirror to see that there was a pale spot where the emblem had been. They took me to a bar nearby, and treated me to synthetic whiskey, raw and powerful. The bartender grinned at me. Someone on the next stool clapped me on the shoulder and asked me who I liked in tomorrow's jet races. I had no idea, and I said so.

"You mean it? I'm backing Kelso. Four to one, but he's got terrific spurt power."

"I'm sorry," I said.

"He's been away for a while," one of the government men said softly.

The euphemism was unmistakable. My neighbor glanced at my forehead and nodded at the pale spot. He offered to buy me a drink too. I accepted, though I was already feeling the effects of the first one. I was a human being again. I was visible.

I did not dare snub him, anyway. It might have been construed as the Crime of Coldness once again. My fifth offense would have meant five years of Invisibility. I had learned humility.

Returning to visibility involved an awkward transition, of course. Old friends to meet, lame conversations to hold, shattered relationships to renew. I had been an exile in my own city for a year, and coming back was not easy.

No one referred to my time of invisibility, naturally. It was treated as an affliction best left unmentioned. Hypocrisy, I thought, but I accepted it. Doubtless they were all trying to spare my feelings. Does one tell a man whose cancerous stomach has been replaced, "I hear you had a narrow escape just now?" Does one say to a man whose aged father has tottered off toward a euthanasia house, "Well, he was getting pretty feeble anyway."

So there was this hole in our shared experience which left me little to talk about with my friends, in particular since I had lost the knack of conversation entirely. The period of readjustment was a trying one.

But I persevered, for I was no longer the same haughty, aloof person I had been before my conviction. I had learned humility in the hardest of schools.

Now and then I noticed an Invisible on the streets, of course. It was impossible to avoid them. But, trained as I had been trained, I quickly glanced away, as though my eyes had come momentarily to rest on some shambling, festering horror from another world.

It was in the fourth month of my

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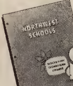

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